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## THINKING TEACHERS.

BY J. L. SANBORN.

IT is possibly a tendency—certainly a frequent mistake—of the time to estimate too highly this or that "system" of teaching, and to under-value individual teachers' peculiar ideas or methods. This is neither unnatural nor surprising, for a deep-seated love of order and aversion to confusion are characteristics of our race and nation; and just now a philosophical school system is rising for the first time among us out of a chaos of disorder and irregularity.

No system of any sort, however, can be of permanent value among a thinking people which is incompatible with the mental independence and activity of those whom it affects.

Recent history has shown that, even in war, where at first sight everything seems to depend on physical force, the thinking soldier—the man of ideas, intelligence, mental resources—is immeasurably superior to the ignorant fighter, however great the animal courage of the latter may be, or however perfect his mechanical drill. Prussia astonished the world by her victories and conquests, because she had gone beyond other nations toward the solution of the problem of reconciling a system which controls hundreds of thousands of men as by one will with the individual independence and spontaneous activity of the men controlled.

A teacher's independence should be greater than a soldier's by just so much as his duties are nobler and more complex—by as much as it is a higher office to shape men's characters than to destroy their bodies. But it is a necessity, too, for a teacher as well as for a soldier, to have a definite drill, and to work under some organization. Education has certain recognized ends, which he must pursue, or his teaching is naught; it has certain methods of arriving at those ends which have been proved to be better than others, and these better methods he must follow, or his work is a waste of time.

Again, to secure the advantage of education in general, he must work in harmony with other teachers, and this he cannot do unless there are common grounds of action, either prescribed by a higher authority or acknowledged by common consent. In short there must be system, and an authority somewhere competent to the general direction of the work to be done, as well as to adjust difficulties that may arise. But unless the individual teacher gives his intel-

ligent approval, the result of his own reasoning, to the system under which he works, he is not likely to be a valuable instructor under that system, and is out of his proper place.

An intelligent carpenter, who is building a house on what he considers a wrong plan, is at a great disadvantage, and does his work badly, though he is still a more desirable man than he who has not intelligence enough to think, or interest enough to care, whether the plan he follows is right or wrong. So the work of a teacher who believes he is going on in the wrong way is a perpetual discord; but still worse is that of the man, or woman, who without thought teaches in a certain way because he is told or accustomed to do so. Such a person is merely turning the crank of a mental mill, and is no teacher at all in any proper sense of the word.

Yet we should not have far to seek to find schools so conducted that the teachers held in the highest esteem, and most in demand, are just these mechanical ones. It is the weakness of all governing bodies—and of school boards just as much as parliaments—to assume that a certain portion of infallibility has been granted them. "Omniscience is their foible." School authorities with this feeling wish to secure such teachers as have just sufficient intelligence and education to enable them to comprehend the rules dictated to them, and carry them out in a mechanical way, whether consciously or unconsciously. They have a deep suspicion of those teachers who have ideas of their own, and who wish always to seek for better methods, having faith that the best yet devised are clumsily rude to those which may be hereafter. When self-satisfied school boards find such a man, they are apt to say with Shakespeare's Cæsar—

"He reads much;  
He is a great observer, and he looks  
Quite through the deeds of men.  
He thinks too much: such men are dangerous."

Of course, if such notions about teachers prevail, the school system becomes, at best, nothing more than a machine; the material on which it acts, and the so-called teachers who tend it, both playing alike an unintelligent part, while the directive power comes wholly from outside. Even if it were well to make our schools mechanical, it would not seem to need a great deal of shrewdness to see that thinking workmen are more desirable than stupid ones. The greatest improvement in machines have been made by the men

who were set to run them. In every mechanical employment the great demand of the day is for skilled, that is, for intelligent labor. No factory or machine-shop can afford to turn off a workman for thinking too much.

Human minds are a vastly finer material than iron or cotton, and the work of a teacher a far more delicate operation than the nicest performance of any artisan. No principle with regard to teaching is more self-evident than that a man cannot possibly teach that which he does not himself know.

But the highest object of teaching is now recognized to be to lead boys and girls to think—not merely to fill human bottles with properly decocted knowledge. Of course, it is impossible for the unthinking teacher to help others to think. *Ex nihilo nihil fit*. Inertia is not a force, but a negation of force, and its product is zero. Falstaff was not only witty in himself, but the cause that wit was in other men. In a better sense than that of Falstaff's, a teacher cannot be the cause that thought is in others unless he be thoughtful in himself.

It is as idle as it is easy to say that a teacher may be as independent as he pleases in other matters, only (for instance) he must teach arithmetic, or discipline a whisperer, according to a prescribed formula. Freedom of thought denied in one matter is checked in all. It would be serious irony to handcuff a man, and then tell him that the world is before him to accomplish whatever his nature prompts him to.

It is not the result of this way of thinking to conclude that teachers should have unlimited license to follow their unreasonable whims, or to ride hobbies to death. Far from it. The thinking teacher will yield the readiest and heartiest submission to good rules and regulations, just as the thinking man is the best and most law-abiding citizen.

For their own sake, as well as that of education, school boards and committees ought to encourage teachers to think, question, and suggest in matters of school regulations, and encourage them to bring forward new ideas, if they have any, at fit times and places. The antagonism sometimes existing between teachers and the supervising authorities is quite as unnatural and groundless as that between teachers and pupils. It will be done away with when each party recognizes the other's rights, and concedes to it a full measure of courtesy, and this will happen only when each, not tolerates merely, but respects the ideas of the other.



Great and gratifying as the progress of popular education in this country has been in the last quarter of a century, there can be no one who does not hope for—there can scarcely be any one familiar with the subject who does not expect—still greater achievements before the twentieth century begins.

Ours is the age of democracy, in which the intelligence and virtue of the average citizen determine the character of the government and the condition of public morals. So in teaching, the intelligence and mental activity of the rank and file of the army of teachers will be the measure of the advance in popular education. The standard of progress is in the hands of the thinking and working teachers of to-day.

CAMBRIDGE, May 20th, 1872.

### THE PUBLIC SCHOOL SYSTEM IN AMERICA.

THE following succinct statement regarding the American Public School System was originally prepared at the instance of the Japanese Minister at Washington by Prof. D. C. Gilman, of Yale College. It has since been submitted for revision to many of the leading educators of the country, by whom its phraseology was considerably modified. In its present form it embodies the substantial doctrines upon which all Americans generally agree, however much they may differ regarding minor details, and ought to be in the hands of every teacher and school officer in the land. It is expected that it will be translated into Japanese and circulated among the officials of that empire. The following is the statement:

#### I.—EDUCATION UNIVERSAL.

The American people maintain in every State a system of education which begins with the infant or primary school, and goes on to the grammar and high schools. These are called "Public Schools," and are supported chiefly by voluntary taxation, and partly by the income of funds derived from the sale of government lands, or from the gifts of individuals.

#### II.—PUBLIC SCHOOLS HAVE BEEN TRIED FOR 250 YEARS.

Their estimate of the value of education is based upon an experience of nearly two centuries and a half, from the earliest settlement of New England, when public schools, high schools, and colleges were established in a region which was almost a wilderness. The general principles then recognized are still approved in the older portions of the country, and are adopted in every new State and Territory which enters the Union.

#### III.—THE WELL KNOWN ADVANTAGES OF EDUCATION.

It is universally conceded that a good system of education fosters virtue, truth, submission to authority, enterprise and thrift, and thereby promotes national prosperity and power; on the other hand, that ignorance tends to laziness, poverty, vice, crime, riot, and consequently to national weakness.

#### IV.—STATE ACTION INDISPENSABLE.

Universal education cannot be secured without aid from the public authorities; or in other words the State, for its own protection and progress, should see that public schools are established in which at

least the rudiments of an education may be acquired by every boy and girl.

#### V.—THE SCHOOLS ARE FREE, ARE OPEN TO ALL, AND GIVE MORAL NOT SECTARIAN LESSONS.

The schools thus carried on by the public for the public, are (a) free from charges for tuition; (b) they are open to children from all classes in society; and (c) no attempt is authorized to teach in them the peculiar doctrines of any religious body, though the Bible is generally read in the schools as the basis of morality; and (d) the universal virtues, truth, obedience, industry, reverence, patriotism and unselfishness, are constantly inculcated.

#### VI.—PRIVATE SCHOOLS ALLOWED AND PROTECTED BY LAW.

While Public Schools are established everywhere, the government allows the largest liberty to Private Schools. Individuals, societies, and churches are free to open schools and receive freely all who will come to them, and in the exercise of this right they are assured of the most sacred protection of the laws.

#### VII.—SPECIAL SCHOOLS FOR SPECIAL CASES.

Special schools for special cases are often provided, particularly in the large towns; for example, evening schools, for those who are at work by day; truant schools, for unruly and irregular children; normal schools, for training the local teachers; high schools, for advanced instructions; drawing schools, for mechanics, and industrial schools for teaching the elements of useful trades.

#### VIII.—LOCAL RESPONSIBILITY UNDER STATE SUPERVISION.

In school matters as in other public business, the responsibilities are distributed and are brought as much as possible to the people. The Federal Government being a Union of many States, leaves to them the control of public instruction. The several States mark out, each for itself, the general principles to be followed, and exercise a general supervision over the workings of the system; subordinate districts or towns determine and carry out the details of the system.

#### IX.—UNIVERSITIES AND COLLEGES ESSENTIAL.

Institutions of the highest class, such as universities, colleges, schools of science, etc., are in a few of the States maintained at public expense; in most they are supported by endowments, under the direction of private corporations which are exempted from taxation. Consequently where tuition is charged, the rate is always low. They are regarded as essential to the welfare of the land, and are everywhere protected and encouraged by favorable laws and charters.

The above summary of the American System of Public Instruction has been endorsed by the following gentlemen:

Noah Porter, D.D., LL.D., President of Yale College.  
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### ANNUAL REPORT OF CHICAGO SCHOOLS.

IT is perhaps known to the readers of this JOURNAL that when the great fire occurred in Chicago, the new school report was just ready to distribute. About fifty copies had been given out. In the fire perished all the others, amounting to nearly five thousand, and it was with difficulty that a single one of the fifty distributed could be procured for the use of the Board of Education. On a late visit to that city I was kindly permitted to read the one belonging to the Board. Through the obliging assistance of a friend I have obtained a manuscript copy of those portions of the report of Mr. Pickard of more general interest to educators. I know that the many teachers and superintendents of the West who have enjoyed, from year to year, the privilege of reading the Chicago report, will be glad of this opportunity to see what Mr. Pickard says, in this and the following extracts from his report, on practical school questions. No one can visit the Chicago schools without seeing at every turn how much they owe to the wise and efficient management of their Superintendent, who is, in the broadest and highest sense of that term, a Christian gentleman. No permanently injurious results could follow to the schools from a conflagration as great even as the terrible one of October, when reorganized under such teachers as Chicago possesses, and with such supervision. W. T. HARRIS.

#### AVERAGE DAILY ATTENDANCE.

The per cent of punctual attendance has reached its maximum, and we can hardly, with reason, expect a higher rate.

Pupils will suffer from sickness, and all necessities of parents will detain others from school. High percentages of attendance are pleasant, and, in a degree, very desirable; but they are not the first in importance, and should not be the main object of labor upon the part of teachers. Punctual attendance is one of the first requisites to success on the part of the pupil, but it is not the sole requisite. Over anxiety to secure the presence of an absent pupil may lead to impertinent inquiries, sharp correspondence, and may result in loss of parental co-operation. It is fair to presume that most parents are interested in the welfare of their children, and that they have good reasons for the detention of their children from school. On the other hand, the teacher's desire to know whether or not the pupil is detained with the parent's consent, should convince the parent of the teacher's good intentions, and should secure a courteous reply. Neither parent nor teacher should be annoyed beyond what is incident to watchful care for the well-being of the child. There are good excuses for absence and for tardiness; and teachers, as well as parents, sometimes find it convenient to use them. Our institute records and our school records sometimes indicate to us that persistent demands for excuses might be annoying, and our right to ask forgiveness may depend somewhat upon our willingness to grant it. In this connection, I cannot forbear alluding to the complaints frequently made of the effect of school work upon the health of the children. It is asserted that the children in our schools are overworked; and that, in consequence thereof, their health be-



comes seriously impaired. It is admitted that some pupils study too much. They are ambitious to meet the wishes of their parents, who love to witness rapid advancement, who are quite anxious to have the record made by their own children as good as that made by the children of their neighbors; or, it may be, that they are physically incapacitated for confinement in the school-room, and of course, should not be permitted to study at all, or, at least, under such rules as must be made to meet the wants of the very large majority of the pupils attending school. These cases are rare exceptions, and special provisions are made for them. In obedience to what seemed to be a felt want, the course of study in our High school was extended, so as to diminish the amount of work required for any one year. The demand on the part of parents, for the privilege of shortening this course, has been so general, that its extension is likely to prove a nullity. Every effort made by school authorities to relieve pressure of study is met by persistent demands, on the part of parents, for more rapid advancement of their children. If a teacher would encourage a child to go more slowly, appeal is made to the Superintendent, or to some member of the Board, interceding for the more rapid promotion of the child. Cases of an expressed desire for the relief of the child from burdens are extremely rare, (I can recall but one such during the past year,) while complaints, that children are kept back in their studies, may be numbered by the scores. A little careful observation has convinced me that our schools are sometimes made to bear the sins of over-eating, under-sleeping and undue excitements. That the mind of the child may work naturally, the body must be in good condition. Any young lady, who spends one or two nights each week in attendance

upon such proper amusements as church fairs and festivals, robbing herself of two or three of the best hours for sleep, will be pretty sure to find a headache in her arithmetic the next morning, if she does not carry it to school with her. The excitements incident to a juvenile party may wear off the next day, provided the mind and body rest in utter idleness; but if a little study is required, the doctor may be summoned, and it is much pleasanter all around if he can find in a geography, rather than in an ice-cream or oysters, the cause of the complaint. This does not remind the parent of any little neglect or careless indulgence, and the teacher is so far away that he cannot reply to the charge. But, in the main, I believe the children in our public schools are as healthy as the same number of children that can be found out of them. The physical condition of all our pupils is in marked contrast with that of pupils in other schools it has been my privilege to visit.

While I do not think the amount of work required of pupils excessive in the gross, it has been my aim to bring teachers into a proper appreciation of the fact that all days are not alike, and that a thorough study of their own mental states will enable them to make a proper assignment of tasks to their pupils. There are days when the work of three or four other days may be done without injury. There are times when a little over-pressure may do incalculable injury. Teachers need to study the physical condition of their pupils, that they may know whom to push, whom to restrain—when to load, when to relieve of burdens. A little more considerate administration of school matters, aided by more judicious influences, will keep pupils in ordinary health.

#### SCHOOL DISCIPLINE.

In all matters pertaining to the well-

ordering of the affairs of the school-room, there has been, during the past few years, a steady and gratifying improvement. Those who are conversant with similar schools elsewhere, give us credit for superiority. Rigid restraints have given place to natural allurements. Teachers have come into closer relations to their pupils. The frigid manner of the overseer has been displaced by the sympathetic tone and look of the friend. School manners are more like society manners. Quiet activity pervades nearly all our school-rooms; there is not death-like stillness, which some still fancy to be the perfection of order, but a more natural and quiet business air. Teachers are, themselves, more easy in their movements, more natural in their tones of voice, and more considerate in their requirements. As a matter of course pupils are more obedient, and more devoted to their work. More has been made of the virtues of children, and less account taken of their faults. Teachers have learned that the cultivation of a good habit, carefully guarded and studiously approved, does more toward the improvement of the pupil than constant lopping off the branches of an evil habit. The consent of the pupil must be secured before any evil habit can be successfully eradicated, and this consent is given only to those who have the pupil's confidence. This confidence is first to be won, not by blind submission to the pupil's will, but by firm and consistent adherence to right, with an intelligent regard for the rights of the pupil. Such confidence has been the reward of most of our teachers. Many have learned that flank movements are often the most successful, while a few coming up rashly in the face of the enemy have been worsted. Most know that it is easier to avoid a collision than to repair damages when a collision has occurred.

In the very large majority of cases, pupils enter school loving, and anxious to be loved; trusting, and eager to be trusted. They place unlimited confidence in their teachers, and are shocked if they find their confidence misplaced. To this general statement there are, of course, exceptions. It is hardly to be expected, in a large city, that some "roughs," of tender years, should not appear. Home influences are not always in favor of good order, and the teacher must often overcome directly adverse influences, on the part of parents, before the child can be taught obedience. Our motto has been "*A Maximum Degree of Order with a Minimum Exercise of Force.*" Under the influence of this motto, objectionable methods of punishment have been less and less frequently resorted to.

Our school attendance now numbers three times what it was seven years ago. The number of cases of corporal punishment is but one-half what it was seven years ago. In seven years the necessity for five cases out of six has disappeared. For each day of the past year we have had nearly 30,000 pupils in school, the average number of cases of corporal punishment has been but 15 per day, or one case per each two thousand pupils. If any teachers in the United States can dispense entirely with the use of the rod, the teachers of Chicago can do it. Rapid strides have been taken towards its disuse, and we are all looking earnestly for the good time coming, when there shall be no necessity for the exercise of any other restraints than those usually denominated moral restraints. Civil society has not yet reached this point, and bonds and imprisonments await many violators of law. Physical restraints and the infliction of physical pain, are recognized means of correction in the family and in the State. The schools should serve an efficient purpose in saving the necessity of either.

#### OUR TEACHERS' BUREAU.

THE applications to the editor of the *American Journal of Education* for good teachers in the West and Southwest have become so numerous that we have established, for the benefit of all concerned, a "Teachers' Bureau." Those desiring teachers are requested to state—

- 1st, Salary paid per month;
- 2d, Length of school term;
- 3d, Qualifications required.

Teachers desiring positions will also state—

- 1st, Their age;
- 2d, How much experience they have had in teaching;
- 3d, What wages they expect per month.

We charge each applicant for a position, and each person applying for a teacher, the sum of *one dollar in advance*, for inserting their application.

#### TEACHERS WANTING SITUATIONS.

No. 189. A gentleman as principal of a good school. Can teach higher mathematics and languages. Six years' experience; good references.

No. 190. A college graduate, a teacher of the English branches, higher mathematics, and languages. Good references; ten years' experience; salary, \$75 per month.

No. 191. A graduate of Phillips Academy, Andover, Mass., as teacher in some good school. Seven years' experience; good references; salary, \$85 to \$100 per month.



STRAIGHT UNIVERSITY, NEW ORLEANS, LA.

THIS institution received its charter June 25, 1869, "with the power to confer all such degrees and honors as are conferred by universities in the United States of America."

It is modeled after the best Northern Colleges, and its immunities are free to all.

It embraces six Departments, as follows:

- I. Academic, or Preparatory.
- II. Collegiate, or Classical.
- III. Normal, for Teachers.
- IV. Medical.
- V. Law.
- VI. Theological.

Charity Hospital is open to the Medical Department.

Ministers and Missionaries of all denominations are free to attend the lectures of the Theological course.

The location of the University (corner of Esplanade and Derbigny streets) is beautiful and healthful. All necessary expenses are moderate, and the facilities for a complete education here are not excelled in the South.

There are day and evening sessions. More than three hundred students have been instructed the past term. Young men and women are fitted for business, teaching and professional life. Tuition one dollar per month. Those intending to be teachers are admitted free; also, the

children of ministers of all denominations.

For a catalogue or further information apply to either of the following:

Rev. J. W. Healy, LL.D., President of the University; or,  
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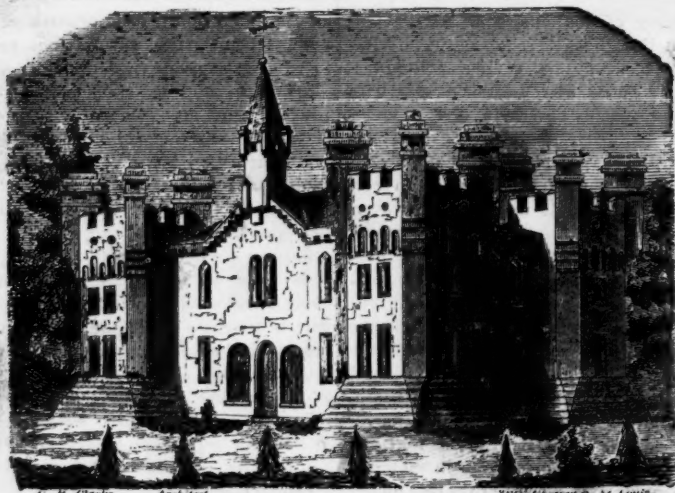
Rev. C. H. Thompson, D.D., Professor in Theological Department.

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L. A. Bell, LL.B.





IMPROVED PLAN FOR A JAIL.

[Engraved expressly for *The American Journal of Education*.]

WHAT shall we do with our criminals? Is it not time to look for something better and beyond mere punishment? Does punishment reach the case, unless we institute reformatory measures?

Look at the official reports, which show that the State Prison in Missouri has cost the people over *twelve and a half millions of dollars*, a fact which ought to arrest the attention of the law-makers and tax-payers to such an extent that ways and means should be adopted to remedy some of the evils, at least, resulting from the ignorance, and consequent vice and crime, which prevails to so large an extent.

It costs about *twelve hundred dollars* to arrest, convict, and send a criminal to State's prison.

Our laws are so defective that only two out of seven, on an average, of the criminals arrested are convicted. Now, we submit whether it is not cheaper to educate a man, and by this means enable him not only to take care of himself, but to produce, from the intelligent use of his own faculties, a surplus to exchange for other commodities, and so add constantly to the *real wealth* of the State and the nation.

The late Dr. Wing, in a letter to Hon. J. R. Miller, a member of the Illinois Legislature, in speaking of this subject, said:

"Statistics show a great number in our penitentiaries that are wholly unlettered. It is a shame to the State if they go out in the same condition. Whenever the State takes control of a man's or boy's life, or becomes his supporter, let the State set an example to other

parents, by providing for his education. She (the State) stands then in the place of a father, as the lawyers say, "*in loco parentis*." I would, then, make some provision for extending educational privileges to all prisons, workhouses, etc. Judicious officers could generally find instructors among the inmates. In cases of jail prisoners found ignorant of the rudiments of education, some benevolent persons could generally be found who would give an hour a day to their instruction, and much could be accomplished in that time, with willing pupils having no attractions to divert their attention."

We hope "the Boards of Public Charities" in this and other States, will thoroughly investigate the workhouses, reform schools, jails, and prisons, both as regards their constitution and management, and make such suggestions as will help both the criminal and the unfortunate classes to become better citizens by means of the instruction and discipline received in these institutions.

This matter of organized supervision of the public charities has now been carried so far that it may be considered as a national institution, like the State Supervision of general education. Ten States have already created these Boards, including Massachusetts, Rhode Island, New York, Pennsylvania, North Carolina, Ohio, Michigan, Illinois, Wisconsin and Missouri, and every year adds one or two to the list. The latest State to act in this matter is Missouri, and Iowa has also been considering it favorably.

Our jails and prisons should be erected with a view to health and reform, as well as for the safety and protection of society from the criminal.

## WANTED.

A PERSON wants a situation as a teacher, and writes the following letter to a school officer to secure it. The application did not come through the "Teachers' Bureau" of the *American Journal of Education*, but we have the original on file in this office. It shows what sort of material is sometimes used, when school officers yield to the clamor raised to employ some relative, because "they had Rether for Me to teach School for thim then iny one elce."

St F — Co F — C — Jan the 27 1872  
Mr Hon Mr W —

Dear Sir i seat My selpth Write to you the Sickond time A bout A school as i have bininformed by P — M — A — D — and Charley Brown that You were the Proper agent to get LiSons from and tha ast Me to write to You for A School as the Population was Kneeding School very bad here and they Say thed they had Rether for Me to teach School for thim then iny one elce So Please let Me No What You can Do for Me you can ast them to give You My RoeKemendation

So Please Excuse My Bad writing for i cant Horid A Steady hand

So No More At Presant tho i hop You will Give Me School Yours Reespictfuly  
M N A S —

## DISTINCTION OF INSTRUCTION FROM EDUCATION.

[The following article is a continuation of Trentowski's "Introduction to Pedagogics," of which five portions have been already printed in this Journal. The translation is by Prof. Podbielski, of Havana College, Cuba. — W. T. H.]

INSTRUCTION is, if I may say so, a cool autumnal wind blowing from the past of humanity, with its rain, upon young man, in order to harden the glowing iron of his deity into steel, and by this means to bring him more surely to the desired end. Humanity is an old sibyl; she has made, in the sciences, arts, industry, and other departments, so gigantic a progress, that to-day it is impossible for one man to occupy this whole rich Hindostan, and to make it a productive mine for himself. Parents will be able to educate a child well, but will be unable themselves to give it the proper instruction; they need then the aid of others. They therefore employ tutors or governesses in their houses, or they send pupils to a public school.

Instruction, for the immature being, is the Cherubim with the sword of fire. It seems a hard thing that Adam and Eve should lose their paradise of thoughtless freedom, and descend to this valley of tears and burden themselves with labor. The child has to bring with himself, as far as possible, a good education to the school, because in the school, not education but instruction is the chief end. The school educates also, though inwardly alone; engrafting, for instance, on the students pure moral and religious principles, freeing them from egotism, awakening in them friendship, love of their fellows, and other social virtues; but this is all rather the word than the living example—rather a theme for instruction than for education proper. Instruction, in truth, enriches exclusively the head of the pupil; still it also impresses on his heart a beneficial influence. The open heart beats commonly under the good head. The good head brings forth the good heart, as the cause produces the effect. The rich thought is a mother of rich feelings.

A proper education is an amusement [*i. e.*, an imitation of prescribed example] and has propriety of behavior for its purpose; but instruction is a labor [*i. e.*, self-activity], and has wisdom as its end and aim. Education supports itself on the columns of habit; instruction on those of activity of spirit. Education can succeed under the direction of another; instruction demands the marshal's staff of the father or of his lieutenants. And instruction regards equally the body and spirit, and the entire self-hood of a pupil; because, not science alone, but also arts and manufactures, which require physical labor, are its object.

The internality of man, or his spirit,

is still in some particular the aim of every instruction, even that of the entirely mechanical discipline; for even a trade develops the human spirit, and forces man to think. In a word, education forms the externality, instruction the internality, of man; education develops the passivity, instruction the activity, of our faculties. Education and instruction, therefore, are found in their relative proportions, and they constitute the poles of pedagogy.

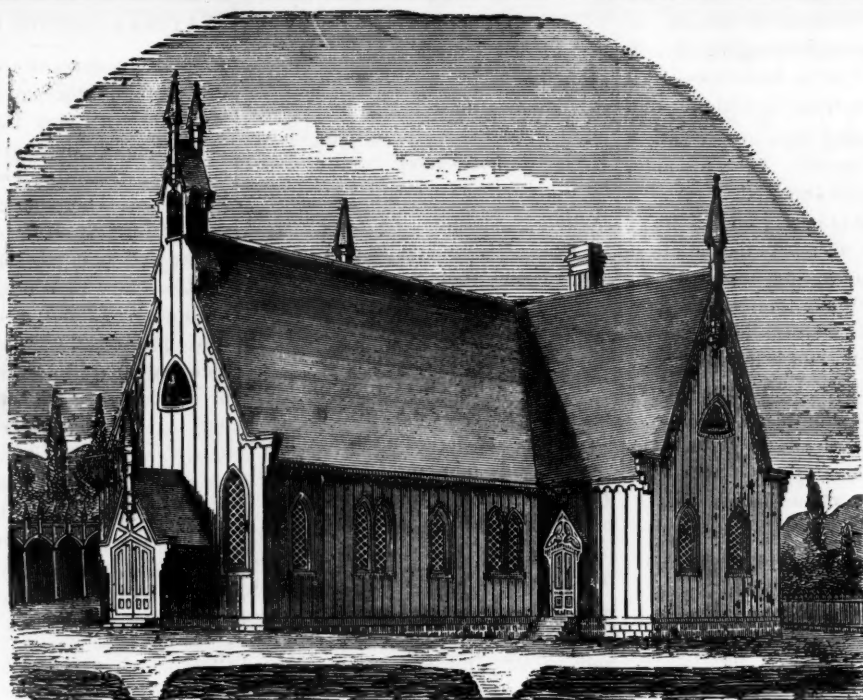
Since education is affirmation, instruction is negation. So it is actually. A man, for instance, given to studies, and living in books, does not care much for a good education; he values it lightly, and thus denies it. As body is with regard to spirit, so is education with regard to instruction. The public schools are commonly temples of instruction; but instruction presupposes education in the parent's house—hence the public and private teacher.

The school brings more profit to the pupil—as he is to be a citizen, a soldier, a little link in the great chain of the State—because it accustoms him early to the society of which he is a faithful image, [and in which he is to live]. But the domestic instruction is better for such a youth as, for example, a prince royal, who is to be placed eventually at the head of the nation, for it accustoms him to singularity, to self-reliance, to a lordly tone, to a seigniorship, and prevents him from becoming too common. God and demigod reign solitary everywhere amidst the heavens, and govern the earth; but man (and this attribute is the most beautiful ornament of monarchs) shakes hands willingly with his brother, and is happy in his embraces.

Still, the school develops sometimes an Asiatic Khan. For example the pupil who stands first through all his classes, and is crowned at the end with the first prize for excellence; or who is placed as monitor to keep his school-mates in discipline, and to take the place of teacher and preserve order; this pupil acquires an imperial look and tone, sometimes becoming haughty and overbearing toward others, and wearing a certain cold and frosty demeanor toward his fellow-pupils. He continues, in after life, to be a Turkish Pasha. Such a man avoids social pleasures, because these did not become a want of his youthful age. For this reason, then, school prizes, whatever may be their usefulness, are not worthy of unconditional praise. Only there may you hope for good instruction where teachers have entire freedom of thought.

WE stop all papers—or intend to—when the time for which they are paid expires, but our mailing clerk will cheerfully correct any errors which are made, if by any means any name is crossed off before the subscription expires.





C. B. Clarke, Architect.

312½ Chestnut st., St. Louis.

## PLAN FOR A CHEAP CHURCH.

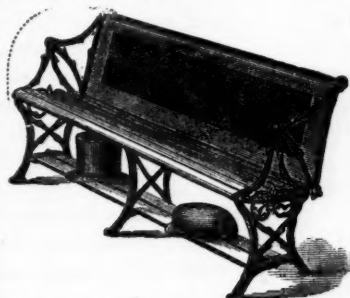
[Engraved expressly for The American Journal of Education.]

THE above cut represents a beautiful but inexpensive country Church, built by the voluntary contributions of a number of the people of the neighborhood, in which our enterprising fellow-citizen, Mr. Samuel Cupples, as usual, had a large interest. It is designed to be used in common for religious worship, and all are cordially invited to attend the services held.

This church is neatly carpeted, well lighted and—as are all the buildings erected by C. B. Clarke, who was the architect of this—well ventilated. It cost about \$4,500, and will seat about 300 persons.

It is fitted up for both Church and Sunday School uses, with the *new*

*Gothic reversible seat* represented by the following cut:



These seats are said to be as comfortable as if upholstered, cooler in summer, very strong and very cheap. They are now coming into very general use in churches and halls in which Sunday school serv-

ices are held; as, by the reversion of the back of one, the two seats can be made to face each other, and thus a large class filling both seats can be brought into closer relation with the teacher.

We believe thoroughly in these union services, where all the people of the neighborhood can be gathered, with their families, to worship, and be trained to virtue, morality and good citizenship.

No bars, or barriers, ought to be allowed to separate those into sects and parties who are earnestly seeking to know the truth, and to live up to the golden precept—"As ye would that others should do unto you, do ye even so unto them."

## RELIGION AND THE SCHOOLS.

BY A. P. Y.

ONE of the best answers ever made is credited to a distinguished clergyman in one of our cities, who, on being asked why the club of which he was a member did not in their meetings make a distinct acknowledgment of God's presence by some religious exercises, replied, "We take some things for granted." Evidently we must take some things for granted, or we could arrive at nothing.

We must have something to stand on before we can move at all, or move anything else. We do not consider it necessary, or even desirable, to express continually to our friends our love for and confidence in them, and we unconsciously distrust the sincerity of him who does so. All expression is but imperfect knowing. The same class of people who made the enquiry above referred to are now using every endeavor to obtain an amendment to the Constitution of the United States, acknowledging the supreme rule of God and trust in the Saviour. Addresses are being delivered all over the country on this

subject, and a strong effort is being made to secure the passage of the amendment, and so to unite, in a measure, the two powers whose union has proved so paralyzing wherever it has existed—the State and the Church.

Watching the earnestness with which the advocates of this measure are urging it, men and women of deep religious convictions are tempted to ask, Shall we not "take some things for granted?"

These earnest and honest advocates are, of course, interested in the retention of the Bible, and some kind of religious teaching, in our public schools. They claim that secular teaching, apart from religious teaching, does harm and not good; and that, if religion were properly taught in the schools, the number of those who never enter a church would in the next generation be greatly diminished.

Experience is no bad guide in such questions. In no part of the world, probably, are the people more thoroughly taught than in Prussia. In no country is religion more carefully looked after in the schools. In Berlin, for instance, one cannot open

even the smallest private school without submitting the proposed programme thereof to the established authorities; and only after it has been so arranged that the time devoted to specially religious instruction is by them considered sufficient, is the school allowed to proceed. Into each school, public or private, comes a Lutheran or a Catholic clergyman; or, if the pupils' parents are divided in religious belief, both. The hour devoted to teaching religion is entirely devoted to that.

But now, if we turn from the schools to the churches, we do not find them over-filled. We find women in plenty, but the men, more free, are not there. As religion was made to them, in their childhood, to stand on the same level with their grammar and arithmetic, they seem to put it away, as they put away all childish things, on arriving at years of discretion.

The people who are pleading so anxiously for the introduction of distinctively religious teaching into our schools are the very same people who turn away in horror from the literature of "infidel, rationalistic Germany," where the policy they are

seeking to adopt has borne its legitimate fruit.

Some take a middle ground between the utter exclusion of religious teaching from the schools and its universal introduction, by proposing that from the common schools, supported by universal taxation, religious exercises be excluded; that the instruction in these be in the merely rudimentary branches for the children from five to ten years of age, and that the higher branches be taught only in private schools supported by private patronage, of which there shall be as many as there are religious denominations.

Waiving the point that teaching, as in other business, is more economically done by combination, and that so large a number of our population are not attached to any religious organization, of course one sees that this position is utterly self-contradictory.

In the first place the large majority of children leave school before they are twelve years old, and by the plan proposed they would be in so-called irreligious schools altogether. And again, does not every one know that the religious impressions made in early childhood are the most vivid and lasting, and that the foundations of character are laid before ten years of age?

Thus, if their own argument holds good, that schools without direct religious teaching are immoral and pernicious, the irreligious character will have been so strongly established in these common schools before ten, that no amount of religious training afterwards will be able to do much to build religious faith on such a foundation.

But the argument thus advanced deceives no one. It is too fallacious not to be seen through at once. It is simply a masked attempt to break down and destroy the Public School system and all the advantages resulting therefrom.

CINCINNATI, May 20, 1872.

GUM ARABIC.—What is it, and where does it come from? In Morocco, after the rainy season, or about the middle of November, a gummy juice exudes spontaneously from the trunks and branches of the acacia tree. It gradually thickens in the furrow down which it runs, and assumes the form of oval and round drops, about the size of a pigeon's egg, of different colors as it comes from red or white gum trees. About the middle of December the Moors encamp on the borders of the forest, and the harvest lasts for a full month. The gum is packed in large leather sacks, and transported on the backs of camels and bullocks to seaports for shipment. The harvest occasion is made one of great rejoicing, and the people for the time being almost live on the gum, which is very nutritious and fattening. Dissolved in water and combined with other ingredients, some of which are necessary to prevent its becoming mouldy or sour, others mere adulterations, it becomes the indispensable mucilage sold by the stationers.



### Why Drawing Should be Taught in Every Public School.

BY EMMA DICKERMAN.

EVERY true, earnest, faithful teacher must have some definite aim in his work, and should teach no subject whatever without considering it with regard to that aim, and deciding that it will aid in its accomplishment.

What should be the aim of the teacher? Twofold, it seems to us. The first, and that most commonly considered, the imparting to the pupil of knowledge: the second, of ability to utilize that knowledge—the development of power. The one must not be made secondary to the other—hand joined in hand they stand, inseparably connected.

Granted, then, that the teacher has carefully studied the question of his duty as teacher, and has come to the above conclusions, what is the next step? Obviously to consider *what* knowledge to impart, and *how* to impart it so as to secure, at the same time, the second aim, or the ability to apply that knowledge to all questions—social, religious, individual—which will be met at some time during his life.

The general answer to the first would be, that knowledge which would best enable him to meet his various obligations, and best fulfill the duties incumbent upon his various relations to himself, his fellows, and his Creator.

By the omnipotent wisdom which created this wonderful animal called man, it has been so ordained that in the proper method of acquisition of this necessary knowledge is given also the proper culture which is necessary to use it. Prove, then, that a certain study taught in any school gives just the knowledge the child must have that he may become, so far as that *one* knowledge is concerned, a perfect being, and I will say, that subject is the very one which will give him just the mental gymnastics, develop just the powers which will enable him best to apply this knowledge to actual experiences and duties.

It then will be necessary to establish as a truth, first, that Drawing *does* give the knowledge which is essential to the child; and, secondly, show *how* it gives the culture which we shall claim it does give.

The child can spend but a small portion of his life in the school-room; while there, it is of primary importance that he shall be led to acquire that knowledge which shall be to him of most use, rejecting that which is of less value till the former be gained. He must obtain such knowledge as will enable him to satisfy material wants—those of food, of shelter, of clothing—such knowledge as will make him a good son and brother, father and husband, a good citizen, and a reverent, pure, loving child of the Great Father. He must, in order that his life may be truly *life*, obtain

at least the outlines of culture, so-called. He must be taught to appreciate the beautiful and sublime—must be led to aspirations for a higher life.

Will Drawing lead him to satisfy his material wants? Yes; he may, by means of this knowledge, give his whole attention to designing, etching, engraving, or any one of the countless modes of representing animated objects by inanimate material. And this occupation enables him to satisfy his wants. He, had it not been that he received such instruction, might have been but a hewer of wood or a drawer of water all his days. He could not—and can not, if poor—receive this instruction elsewhere than in the common school. The country can not afford that any material of this nature shall be wasted.

The knowledge that shall give each man the means of doing what he was *meant* to do, is the knowledge which should be given in the public school. If the child has no *talent* for art, he at least will do whatever work he undertakes *better* for his knowledge of drawing. He will be a better carpenter, a better engineer, a better mason, a better gardener.

There is a higher knowledge that will be given—a knowledge leading to the wide and glorious fields of art—transporting the wandering to realms divinely fair. We can never become an æsthetic and highly developed people until every pupil in every school is taught the principles and given the practice of Drawing.

Have we shown, then, that in teaching the child to draw, the teacher is giving necessary knowledge?—necessary to the individual, and also to the social world, which is thereby benefited.

Let us see whether, in acquiring this knowledge, the cultivation of the faculties is commensurate. We assumed at first that this would be true in any case, hence it follows it must be true in this. How shall we prove it? Take, first, the intellect; how does it sharpen and invigorate its powers? Briefly, it affords the finest cultivation of the perceptive faculty, by training the eye to minute observation and the utmost accuracy, whether in copying from nature or from the artificial. It cultivates the conceptive faculties by assisting to form clear, distinct and vivid concepts—which must be done before any object or picture can be reproduced on paper from memory. Wide margin is left for the play of the imagination, which is trained and developed to a high degree of excellence. Comparison is exercised largely; the child from the first places his work in juxtaposition with the original, or the concept, and judges of their relations, his judgments becoming more accurate, keener and closer, the longer he studies. Memory and recollection are in constant use. In fact, every power is called into operation; some perhaps in a less degree than others, still none are neglected.

The moral nature is educated—the pupil is led to more elevated fields of thought—to purer and nobler. He is led to love those things that are ennobling, and shun those that debase. He is brought nearer to nature, and by study here is drawn nearer to the Author of Nature. New avenues of pleasure are opened to him—more delicate and refined enjoyments are his—a thousand voices speak to him where other ears hear nothing—his life is infinitely more complete.

If such be the effect upon the individual, what must the effect be upon the State? A higher civilization, we answer. Less money would be needed for penitentiaries, much more for public schools. Better work would be done; the products would be finer; the whole body of society *lifted* at least several grades.

Do you say this is Utopian? Perhaps it is. But let us for half a minute contemplate facts. Nearly all the designers for any kind of manufacture—be it jewelry, silverware, or cotton cloth—are foreigners, educated in *free art schools* abroad. The artisan receives regular instruction in drawing and designing for nothing. The result is finer work, work with which we are not yet able to compete, and can not be until steps are taken to provide our mechanics and artisans of various grades with instruction.

And when shall this be given? When those who are to learn are grown and mature physically and mentally? Shall free schools be established for apprentices and foreman alike? Yes, I say, but then the *root* has not yet been touched. This education must begin in early youth. The eye must not be trained to regard with disdain its co-worker, the hand. The hand is a patient, willing servant, but it will not work under a critical task-master, whose only office seems to be that of finding fault. Leave the mechanical culture of the hand, in connection with the guidance of the eye, till the pupil is in youth or manhood, and it will be of comparatively little use to try then to teach such an one to draw. The eye has become trained to judge accurately, and it is very critical. The hand becoming discouraged will not work. No, this training *must* commence in childhood. It must be given in our public schools, because nowhere else can it be given.

It is the duty of the State to look to these things, to guard jealously its right to honorable citizens and enlightened men, educated workmen, and cultivated, refined social influences. It must teach in its schools that which the child needs most, and it must require that every teacher be able to teach, at least, the rudiments of Drawing.

NORMAL SCHOOL, PERU, Nebraska,  
May 20th, 1872.

A MAN has no more right to say an uncivil thing than to act one; no more right to say a rude thing to another than to knock him down.

### NATURAL SCIENCE IN SCHOOLS.

OUR readers are aware that a few months since, Sup't W. T. Harris of the St. Louis Public Schools, recommended the introduction of a course of natural science in our Public Schools which has created a good deal of interest all through the country as well as in St. Louis.

Miss Mary F. Wiles, a teacher in the Penrose school, sends us the following abstract, written entirely from memory the day after the subject was presented. We are very glad to give it a place in "*The American Journal of Education*," as it shows how well not only the teachers but the pupils understand the topics discussed.

The subject of the lecture was:

#### BONES OF THE EXTREMITIES.

There is a round bone in the upper part of the arm, where it is attached to the shoulder blade. There are three joints in the arm; the ball and socket joint is the joint at the upper part of the arm. It is so called because you can make a whirling movement with your arm; and the joint at the elbow is called hinge joint, because you cannot make a whirling motion at the elbow, it can only go back and forth, like a door, and that is the reason it is called hinge joint.

There are thirty bones in the arm and hand; in the upper part of the arm there is one bone called Humerus. In the fore part there are two called Ulna and Radius. Then the wrist is composed of eight bones, the palm of the hand five, the thumb two, and each of the fingers three, which makes thirty. I have a thumb, a fore finger, a middle finger, a ring finger, and a little finger, and five knuckles on each hand. The wrist is composed of eight bones, which are in two layers, upper and lower, making four bones in each layer. The finger nails are to protect the soft parts of the fingers. The hand is used in pulling, throwing, catching, pushing, holding, and feeling.

The wrist is called carpus, and the palm of the hand metacarpus. Muscles, cords and ligaments are what cover the bones. In the foot and leg there are also thirty bones. In the upper part of the leg there is one bone called the thigh bone; and over the knee is a round thick bone called the knee-pan or patella. Patella is a Latin word which means plate, and it is so called because it is round and shaped something like a plate. The heel has seven bones, the middle of the foot five, the large toe two, and each of the others three. The teeth are made of bone, but the bones grow and the teeth do not. When our teeth first come they are about as large as they ever will be, so we have two sets, for the first set would be too small for us when we grow up. On the outside there is a beautiful enamel, and that is the prettiest part of the teeth. Our feet are used in walking, running, jumping, skating, sliding, and standing. The thigh bone is called femur; from the thigh to the patella is the longest bone in our body, in grown people it is about two feet long. The bones in men and ordinary animals are inside, but in crabs and lobsters the bones are on the outside, forming a case to protect the more delicate parts from injury; but crabs and lobsters have to grow, and when the old case gets too small, they go and hide somewhere and make a desperate effort to break the shell, but it is very dangerous, and sometimes even proves fatal; then he stays still a few days and a new case comes on, and when he goes out in his new armor he is as brave and ready to fight as ever. If an old person should fall as often as a baby does they would be killed or injured for life. In a baby's head the skull is in three parts, and when it falls the bones do not break, but they move a little. Old people's bones are brittle; our bones are almost all in pairs; we have to take exercise to make our bones grow.

LIZZIE FULTON MATHEWS,  
Room No. 3, Penrose School St. Louis.  
Age 10 years.



A. S. MERMOD.

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C. F. MATHEY.

GOODMAN KING.

## A DROP OF WATER'S HISTORY.

(Translated from the German of Grube expressly for the American Journal of Education.)

IN the wide ocean's bed sprang, like merry children, thousands of little drops, and allowed the wind to rock them to and fro. One little son of this drop-family was exceedingly petulant, and tried with all his might to jump the highest of all. Looking up to the clear blue sky and the radiant sun, he felt a nameless longing to soar aloft into the atmosphere above, and to look down upon the earth. "Pray," said he to the sun, "take me up to thee." The sun very obligingly sent forth some of her rays to get the pert little drop, and many more with him, "for company's sake."

Dissolved into invisible vapor, the drops ascended up to a lofty height, and sailed on and on, driven by the current of air. A new world presented itself to their astonished gaze. They beheld green meadows and waving corn-fields, trees and shrubs, villages and towns. Here they saw a peasant plowing his field, there a rider galloping his steed; and heeded not, in their joy, that the sun had sunk deeper and deeper. Colder grew the air, and our little drop, looking in vain for a resting place, finally resolved to take its way down to the earth. A rose in full bloom allowed him to sleep over night in its calyx.

Awakened by Aurora, the little dew-drop seated himself on the margin of a rose-leaf, entreating the sun to take him along once more, for a long voyage over the earth. But when the day grew hot and sultry, the little drop decreased in strength, and wished to be with his mother, the ocean. And, behold! a cold breeze drove many drops together into a dense cloud; and soon our little brothers were very much astonished to find themselves transformed into large visible drops of water, which ran down to the earth with

full speed. That was a rushing and splashing when the little company reached the ground. But people said: "It is raining!"

Our hero fell on a mountain; merrily he sprang down the precipices, followed by his brothers; soon a little army of drops were assembled, rushing along, a foaming wood-brook, over a large wheel, which was turning around with utmost rapidity. Our little drop, too, had to venture the dangerous leap, and feared to find his grave; but he succeeded finally in making his way through the foam into a pool. Out of there a woman caught him with a watering-can, to pour him on some white linen, which was spread out on the grass-plot to bleach in the sun. Soon our hero, transformed once more into vapor, arose and soared aloft, and was carried northward; and, as he and his brothers were complaining of the bitter cold, they were all changed into white, fleecy, silvery stars, and as they fell down on meadow and field, people said: "It snows!" In this new shape the little drops sheltered the green seed like a soft winter covering, and remained asleep for almost five months, when the sun awoke them, and they put off their wintry garment.

Gladly they journeyed on toward the river, where they were glad to carry steamboats, and to accompany them down to the harbor. One day our little drop overheard the sailors, as they were saying to each other—"To-morrow we shall travel far away into the ocean!" Oh, how he longed to go with them! In full speed he sprang upon the helm, soon the land vanished, and in a few days he greeted his mother, the ocean, and related his adventures to his astonished brothers.

If thou, my dear reader, wilt wander, on a clear summer night, along the shore of the ocean, thou wilt hear a soft murmuring and a mysterious whispering. The little drops are just then telling strange stories of their distant journeys. Then think of it, that our Father in heaven, who has counted and guards all these drops, will also guide thy steps, and lead thee safely through the erring ways of earthly life into the ocean of Eternity.

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Lisle Thread Hose.....35c. per pair.  
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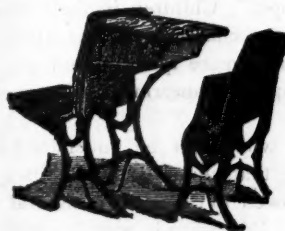
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THE AMERICAN

**Journal of Education.**

J. B. MERWIN .....Editor.

ST. LOUIS, MO., JUNE, : : : : 1872.

**A PLATFORM.**

PROBABLY in no political party can two men be found who think precisely alike on all issues. Parties are always more or less the result of compromise—men who differ agreeing to leave in abeyance the points of difference for the sake of securing results in which they are alike interested. The statement of doctrines which in America we call a platform is therefore, in most particulars, only a broad statement of foundation principles. And on these, in many cases, two contending parties are so well agreed that their platforms are almost word for word the same, except as regards the one issue of the hour on which they divide.

The shifting of parties, the diversity of issues year after year, like currents in the ocean, tend to keep our parties pure. They might be purer than they are, and will be so when men begin to look upon parties as they actually are—transient organizations based on temporary compromises. The faster they shift, the more frequently men are compelled to get back to first principles, and in their new departure to use their own judgment rather than follow the dictum of a party leader.

This getting back to first principles is always good. In politics, in religion, in business, in pleasure even, in whatever engages us continuously, we are too apt to run into grooves—to follow beaten tracks. It is good to be methodical in all things, but routine alone is slow death. Orthodoxy is as crushing to law, medicine, and pedagogics as to theology.

Reverence is good if it is for what is good and true, but the man whose reverence is given only to that which is old, had better butt his head against a wall, and augment his usefulness and wisdom together by demolishing the phrenological organ.

The statement we publish in this number of the *Journal*, regarding the Public School System in America, while it aims to state facts rather than doctrines and principles, nevertheless sets forth quite fully the foundation ideas of the system on which all who favor public schools at all are agreed.

It approaches, as nearly as seems practicable, to what might be termed the Gospel of Public Schools. It is the platform on which all must build, however great the diversity in superstructure.

It is succinct, every sentence and every word having been carefully weighed by men of the profoundest scholarship and deepest interest in the Public School cause, and of all sections of the country. The names attached to it show how generally it is accepted and approved.

Educators in America want some such declaration of facts or principles as a common ground to stand upon. They may all accept this as such, and get it by heart. So far as it goes—and it embodies all that American educators are to-day fully agreed upon—it will serve to rest upon in times of controversy, and should be carefully studied and adopted by every association of teachers.

Let it be read, parsed, copied, translated, set to music—everything to make every word in it perfectly familiar to all our teachers and scholars.

With wider and longer experience new facts may be accepted, and new principles added to those now enumerated, but it is not likely any of these can be materially modified.

**SEASONS IN STUDY.**

NO one who passes daily through the streets of our towns and cities year after year, can fail to observe the regular recurrence of children's games; nor does one need to look at any other almanac to know what month, or what part of what month it is. The top in the hands of the boys makes its appearance simultaneously with the jumping-rope in the hands of the girls, at the same time that they came the year before, and these succeed immediately the singing ring-games of the girls and the marbles of the boys.

As the farmer hails with a certainty of warmer weather the shadow of the cloud of wild geese, northward flying, or the song of the first robin; so we might say, "Spring has fairly got possession at last, for I saw the first top to day, and stumbled over a jumping rope." Children in their more instinctive character feel the climatic influences more quickly, and are in their sports unerring indicators of them.

We would not be understood as hinting that children should always be allowed to do what is natural to them. Education is merely another word for the subjection to rational will of the simply natural; and Rousseau would never have been Rousseau if allowed to grow up exactly on his own plan; but we do say that committees and teachers, in arranging plans of study and in carrying on school work, ought not to neglect entirely the hints which children's sports give them. When each year, in June, the game which was their delight in February no longer amuses or even attracts them, and is undeviatingly the same as they played on the June before, we do say that, if we do not desire them to grow languid over their books, to dislike their studies, and to play truant, we must make the subjects and branches of study we exercise them on vary somewhat with the changing seasons.

Why not spend our main strength on Arithmetic, Grammar, History and writing during the winter months, and then slacken our efforts a little

on these as spring comes on, and bring a greater pressure to bear on Geography, Botany, Natural Science generally, Drawing and Composition writing? or let us teach Political Geography during the winter, and save Physical Geography till the spring or summer.

These are only hints at what might be done. But do not let us keep up the same monotonous daily and weekly routine all through the changing seasons, with minds that feel their influence even more than our own, and then reprove the changeable children for want of interest, or punish them for truancy.

Again, the recitation which was none too long in December may be too long in June. In the frigid zones animals and plants are of unvarying and monotonous colors; but, as we advance towards the tropics, the colors increase in variety, and violent contrasts are the rule, not the exception. The inhabitants of the northern temperate zones are yearly travellers from the poles to the equator and back again, though they fancy they stay at home. Borne by the irresistible revolution of the planet, they travel, whether they will or no, from frigid to torrid and from torrid to frigid, as August follows February and February August.

Should we not take these facts a little more into consideration, change and vary the studies of the children, and moreover give them greater variety, more rapid changes of work in the spring months?

We suggest this question to the consideration of educators, to those who have the arrangement of the course of study, and to those who have the planning of daily programmes, confident that better results could be attained in the securing of good and the prevention of bad results, if they would take a hint from the games of the children.

**HOW MUCH?**

WE remember a certain very puzzling chapter in our school Algebra, in which zero was satisfactorily proved to be equal to any assignable quantity; and we are often reminded of it by people who seem unable to perceive that in what they have said they have said nothing. An example of this kind of statement we find in a late article on schools, in which the writer says: "A certain amount of intelligence among the people is necessary to the permanence and well-being of the State," and then supposes he has made a valuable concession. But we are inclined to ask him to go on, and to say something of meaning.

It is very certain that no one will dispute the statement as it stands. That is just what the Khan of Tartary says—what the ruler of Turkey says—what the inhabitants of New Zealand and the cannibal islands believe. "A certain amount of intelligence is necessary to the permanence

and well-being of a community" of ants or bees, as well. But the question is, how large is this very uncertain "certain amount?" and till this question is answered we have said nothing.

When we have said that the cause of day and night is the rotation of the earth on its axis, we have really said nothing, unless we know why it revolves and why it must revolve. It is of no use for the earth to rest on the elephant, and the elephant to stand on the tortoise, unless the tortoise stands on something; and if we do not know what that is, we do not know what supports the earth.

The fact is, the "certain amount of intelligence" varies in meaning with each year and each nation. The intelligence which was amply sufficient for a Tartar of the twelfth century would scarcely suffice for an Englishman of the nineteenth; and the amount of intelligence desirable in a citizen of the United States would hardly be consistent with the safety of a slave oligarchy. The amount of intelligence necessary for the permanence and well-being of the State is always exactly proportioned to the amount of liberty enjoyed; and here it is that the nature of a government must determine the nature of its entire educational system.

Now, the question we have to deal with is this: *How much* intelligence do we need in our American men and women in order that our nation may be stable and prosperous? Is it enough that our men and women should know how to read, write and cipher as far as the rule of three? If that is enough, then that is our "certain amount."

But if it is not enough—if we need more in order that our country may be so well able to protect herself at a moment's warning that no foe will dare to attack her—if we do need more in order that she may hold her own in this age of scientific progress among the nations of the earth—then possibly the "certain amount" needed for an American citizen may include something more than reading, writing, geography, grammar and arithmetic; and we may be endangering the "permanence and welfare" of our nation if we do not include more in our course of public school education.

**NORMAL INSTITUTES.**

WE take pleasure in calling the attention of our teachers to the fact that several *Normal Institutes* are to be established in Illinois, Missouri, Iowa, Kansas, Kentucky, and other States, for the training of such teachers as choose to avail themselves of the instruction afforded at the several points where these Institutes are to be held this summer.

One at Springfield, Mo., is to open July 1st, and will continue about five weeks. Prof. Baldwin, Principal of the Kirksville Normal School, will be present. Hon. Geo. E. Seymour, Assistant State Superintendent of



Public Schools, Prof. B. S. Newland, and several others, will also render valuable assistance. Lectures are to be delivered each week, and music will also be taught.

A District Institute will be held in Pierce City, the first week in Sept.

We will furnish circulars giving full information to all who apply, or those wishing to attend can apply directly to Prof. B. S. Newland, at Springfield, Mo.

At Warrensburg, Mo., an Institute will open on July 9th, closing August 4th, in which special prominence will be given to professional instruction and training, under the direction of Profs. Beard and Angell. Several of our best city teachers have already been engaged to assist in this and other States.

At Normal, Ills., there is to be the usual session, and also at Taylorville.

Arrangements have been made to open several in Kentucky, and in Iowa, of which the State Superintendents will give all needed information upon application to them.

Texas is moving vigorously in this direction also. Several District Institutes are to be held, and specific and valuable instruction will be given in the way of drills, discussions, and lectures.

These gatherings betoken an earnest purpose, on the part of both our teachers and school officers, to make our free public school system broad enough, and thorough enough, to meet the pressing demand of the people for such an education as will enable all to fully discharge the high and responsible duties of American citizenship.

Let each do all, and the best they can, to make these Institutes a success in all respects.

#### THE SÆNGERFEST.

IN this country we have adopted many national customs from the numerous races that make up the American people. There is scarcely one of them, however insignificant, that has not contributed something to our American life, character or language. Europe, Asia, Africa and our own Aborigines have left their marks everywhere, and your American is to-day the true cosmopolite.

The Sængerfest is one of these importations from Germany, and a good one it is, and we welcome the annual gathering of the Singing Societies to our city. Vocal harmony is typical of social and political harmony, and we would wish this year at least a permanent Sængerfest to allay the strife and bitterness that the impending political contest engenders.

The Sængerfest building, about completed in this city, is 150 x 322 feet on the ground, and will seat 15,000 people, beside 1,500 to 2,000 singers and musicians on the platform. It is a grand performance, the largest ever held in the West, and we hope the hall will be filled day after day. The railroads centering here sell excursion or return tickets at one fifth fare, and we look for a crowd. St. Louis hospitality is unbounded, and all who come will find room.

#### THE EDITORIAL CONVENTION.

SEDALIA is a brave, young, growing city, not yet in her teens. The welcome she gave the editorial fraternity of Missouri, and the editors present from other States, through Mayor Cummings, was most cordial and enthusiastic—all that was promised, and more even than was expected. The hearts, homes, and purses, of her citizens were placed at the disposal of the guests while they tarried there.

More than this, the railroads centering at this point coöperated with the people, and generously tendered the use of trains to carry the editors there, to give them excursions north and south after they got there, and to take them to their homes when the Convention adjourned.

We but express the universal feeling of the hundreds present when we say the Convention was in all respects a grand success.

Smith's Hall—one of the finest in the West, and one of which Sedalia may well be proud—was filled to its utmost capacity during each session of the Convention; and a more intelligent body of men and women gathered together one will seldom see, East or West.

The local committee seemed to be omnipresent, and nothing was left undone which would contribute to the happiness of the guests or the success of the Convention.

In fact, Sedalia was so generous that she came near being selfish. Sedalia and Boonville both wanted the Convention this year, and we all wanted to go to both places, and last year at St. Joseph made at least a partial agreement to do so.

We were the guests of Sedalia. After our reception, which was an ovation—after a banquet, which would have done honor to the oldest and largest city on the continent—after a ball, given in honor of the occasion—after all this, Sedalia wanted the Convention to accept of an excursion into the South-west; and the managers of the Missouri, Kansas and Texas Railroad placed a magnificent train of cars at the disposal of the committee of arrangements—to run where, and when, and how they should dictate.

Clinton prepared a splendid breakfast, Parsons a sumptuous dinner, and Nevada a bountiful supper; and, after voting Sedalia the most beautiful, hospitable, and enterprising city of the West, and proving all this to be true, still we had to go on the excursion; and go we did, and a grand thing it proved to be.

Our advice to those who propose to locate in Missouri is, to go to Sedalia, stop over night at the "Ives House," and then take a trip down over the Missouri, Kansas and Texas Railroad; and if you do not feel that you get your money's worth—and a good deal more—send the bill to us and we will pay it.

Leaving Sedalia early Thursday morning, the train returned in the evening and took the whole party over to Boonville; and here the generosity and hospitality of Sedalia was duplicated, and—more too.

The poem, by Major John N. Edwards, of the *Kansas City Times*, was a gem—strong and beautiful—and, in his absence, was very effectively rendered by his associate, Major Pangborn.

Of the oration we cannot, of course, say anything; but, as we printed in this *Journal* a sharp criticism, by our very kind and excellent friend, Dr. Hull, upon an address which we gave in Sedalia on a former occasion, we shall be excused, we hope, if we now print what the editor of the *Daily Democrat* said of the oration delivered before the Convention on this occasion:

"J. B. Merwin, of *The American Journal of Education*, St. Louis, was then introduced as the orator of the occasion, and intense interest was manifested by the large and intelligent audience of ladies and gentlemen, editors and citizens. The frequent bursts of applause showed that the address was well worthy of the occasion, and maintained the high reputation he has gained, and so nobly worn, as a live journalist and popular orator. At the close it was moved, and unanimously carried, that the author be requested to furnish a copy of his able and eloquent address for publication."

Mr. C. M. Walker, editor of the *Sedalia Times*, spoke of the oration as follows:

"The President introduced J. B. Merwin the orator of the occasion who proceeded to deliver a most interesting and able address. Though long it was listened to with unflagging attention and the hearty applause with which it was greeted attested a full appreciation of its sound logic, noble thoughts, pure expression and admirable delivery. A vote of thanks was returned and a copy of the address solicited for publication."

The *Democrat* and *Times* are representative papers of the two political parties of the country.

The officers for the year ensuing are—

President—Dr. A. Y. Hull, of the *Sedalia Democrat*.

Vice-President—Col. R. T. Van Horn, of the *Kansas City Journal*.

Recording Secretary—A. P. Selby, of the *Boonville Advertiser*.

Corresponding Secretary—C. M. Walker, of the *Sedalia Times*.

Treasurer—Wm. Maynard, of the *Moberly Headlight*.

Orator—Gen. John S. Marmaduke, of the *St. Louis Journal of Agriculture*.

Poet—John G. Provines, of the *Fulton Telegraph*.

The banquet at the Ives House, as we have before remarked, was both elegant and sumptuous. At its close, Major J. B. Clark, of the *Potosi Journal*, Chairman of the Committee on Sentiments, read the following, to which several gentlemen responded appropriately:

1. "Sedalia, the central city of the central State of the Union, and the home of unbounded hospitality."—Mayor Cummings.

2. "The Editorial Association of Missouri."—A. Null.

3. "Missouri, the central star in the galaxy of the nation."—Norman J. Colman.

4. "The rural Press."—Mark L. DeMotte.

5. "Our school system."—John Monteith.

6. "St. Louis, the proud commercial emporium of our glorious Commonwealth."—J. L. Tracy.

7. "The legislative department."—J. W. Barrett.

8. "Our railroad system."—Jno. J. Crisp.

9. "The pioneers of Missouri."—W. F. Switzer.

10. "The Nestors of the Missouri press."—Col. Easton.

11. "Our mothers, wives, daughters, and sweethearts."—C. B. Wilkerson.

12. "The Press as an educator."—J. B. Merwin.

We are, with the other guests in attendance, greatly indebted to Mr. and Mrs. Ives, of the "Ives House," for their unremitting kindness and attention while in Sedalia. All the employes, too, seemed to anticipate the wants of the crowd who thronged the dining rooms, and ought not to be forgotten.

The Clinton and Lexington bands furnished music of great variety and excellence, and our old friend Dr. Shattuck who has done so much through the press to spread the fame and good name of Sedalia is also entitled to great credit for his attention to the guests and strangers present.

We wish especially to commend and endorse, in closing, the pluck and determination of the Committee of Arrangements, in excluding all intoxicating liquors from the banquet tables. We hope the example of Sedalia will be followed in this respect, on all occasions of this kind.

#### ORDER OF BUSINESS.

The following order of business suggested by the editor of the *Sedalia Times*, we heartily commend, or something like it, to the consideration of the press.

1. Opening by Prayer.
2. Call of the roll.
3. Reading minutes of last session.
4. Election of officers.
5. Appointment of standing committees.
6. Unfinished business.
7. Business in relation to the general interests of the Craft.
8. Annual Address.
9. Annual Poem.
10. Miscellaneous business.

This order to be interspersed with music, addresses of welcome, &c., or other necessary or appropriate exercises, but not to be dispensed with unless by a two-thirds vote of those present. What say you, brother editors?

The next Convention will be held in Louisiana, in May, 1873.



## EXCURSION TICKETS WEST.

MR. Wm. D. Butler, the Assistant Superintendent of schools, has made arrangements by which teachers can be furnished tickets from St. Louis to Cheyenne and return for \$46, and to Denver and return for \$50.

Our teachers in St. Louis and vicinity seem to be well provided for, as to pleasant and healthful recreations and excursions both east and west. They have a strong, compact, organization, and can secure by virtue of this, a great many advantages to which all our teachers ought to be entitled, and of which they ought to be able to avail themselves—but every year for the want of this organization, the teachers outside of St. Louis are virtually cut off from all these advantages because there is no one who takes the responsibility to represent them.

We think the Officers of our State Teachers Association ought to look after this matter. The teachers outside of St. Louis are just as much entitled to "excursion tickets" at reduced rates as are those in the City, and it is a great piece of folly as well as an injustice to them to overlook them in making arrangements for excursion tickets.

We hope another year a committee will be chosen having consideration and breadth enough to include all *bona fide* teachers who may wish to go east or West.

This narrow gauge business won't wear, and it ought not to. If one teacher is entitled to an excursion ticket at reduced rates from St. Louis to any given point, all teachers who may wish to go from St. Louis to any given point are entitled to the same consideration, whether they teach in St. Louis, or St. Joe, or Springfield, or Little Rock, or Macon, or any other place.

St. Louis represents the whole West and South, and if our teachers here represent anything less than that, they fail to comprehend the situation.

## EXCURSION TICKETS EAST.

GREAT credit is due Mr. Chas. E. Follett of the "Vandalia Route East" for securing to those actually engaged in teaching the very low rates for which *excursion tickets* to New York and return are sold to our teachers. Mr. Follett insisted upon it, that if excursion tickets were going to be sold to the politicians, they ought certainly to be sold to school teachers.

We admire both his pluck and his judgment. Certainly our school teachers are worth more to the country than these—[people can fill up that space with such adjectives as will best express their own opinions of politicians.]

Mr. Follett will sell excursion tickets to *bona fide teachers only*, from St. Louis to New York and return for \$25.00.

Teachers wishing to avail themselves of these rates must secure a certificate signed by Mr. W. D. Butler, Assistant Superintendent, St. Louis Public Schools, (whose office is in the Polytechnic Building, corner Seventh and Chestnut streets,) that they are teachers of public or private schools.

The "Vandalia Route East" is by far the best and shortest route between St. Louis and New York, and they run the train through in *thirty-eight hours*.

They put on the Pullman's Palace Drawing-room cars to New York Philadelphia, Pittsburgh, Columbus Louisville and Cincinnati, without change.

The Morning Express leaves daily except Sunday, at 7.30 a. m. Fast Line, every day, 6.15 p. m.

The Fast Line arriving in New York the second morning at 10 o'clock, with corresponding fast time to intermediate points—the merchants, business men, teachers and others practically losing but one day between St. Louis and New York.

These tickets will be on sale from June 15th to July 4th to go, and the tickets will be good to return until September 15th.

Dr. Stennett of the Chicago Through Line will sell tickets to *bona fide* teachers, to go from St. Louis to New York, and return via Chicago and Niagara Falls, for \$30. These tickets will only be sold on Mr. Butler's certificate, subject to the same conditions as by the other route.

Persons holding these tickets can stop over in Chicago, or at Niagara Falls, and resume their journey again at any time, so as to reach New York before July 4th.

## MORE EXCURSION TICKETS.

DR. W. H. Stennett, who represents the "Chicago Through Line" and the Illinois Central Railroad at this point, has arranged to sell "excursion tickets" at greatly reduced rates to those who desire to go North or East from St. Louis.

Tickets are sold from St. Louis to Milwaukee and return; St. Paul and return; Madison, Wis., Morquette, Mich., and Duluth. Also, to Boston and return for \$41.00 over two routes, as follows:

St. Louis to Chicago, via Chicago Through Line, and to Detroit via Michigan Central Railroad. Detroit to Portland via Grand Trunk Railroad. Portland to Boston via Boston and Maine or Eastern Railroads. Return same route; or St. Louis to Detroit via Michigan Central Railroad; Detroit to St. Johns via Montreal via Grand Trunk Railroad; St. Johns to Boston via Vermont Central Railroad. This via St. Johns, St. Albans, Burlington, Vt.; White River Junction, Concord; Nashua, N. H.; Lowell, etc.—Return by same route.

These tickets will be sold to all applying, without presentation of cer-

tificate from any one. Circulars with full explanations and rates of fare will be sent on application to Dr. Stennett, and we are sure our friends will find this route north especially pleasant.

## ENLARGED AGAIN.

WE again present our subscribers with a large amount of extra reading matter. We are enabled to do this, because our advertisers find this *Journal*, with its 10,000 circulation, among the most intelligent and enterprising people of the West and South—a profitable medium of communication between them and their customers.

Our advertisements are all *first class*. We will not take or print any others, and our subscribers cannot afford to lose a line of the matter in our advertising columns, any more than in the reading matter.

Men do not pay what a line of advertising costs in this *Journal*, unless they have something to say worth saying and worth reading.

The *American Journal of Education*, never has published any "quack" advertisements, and never will, as long as we control its columns. We have been offered \$80 a column for space for this kind of advertising, but have declined it.

There is a vast region of country tributary to this market, and we are sure our friends will find no better medium than this *Journal*, through which to make known to the people who purchase goods here what they have to sell.

The live men and women of the West and South take this *Journal* and read it—advertisements and all.

SCHOOL OF MINES.—At a meeting of the Board of Curators of the State University during the present week. The board elected Boyle Gordon, of Columbia, Professor of Law in the State University, and authorized the treasurer of the School of Mines at Rolla, Mo., to dispose of six thousand dollars worth of bonds, proceeds to be applied to the purchase of apparatus, equipments and library for the School of Mines. It also empowered the executive committee to elect a professor of applied mathematics for the same institution, and to employ such other teachers as the school may require. The executive committee is also authorized to employ Mr. Allen, of Allentown, the present incumbent, as assistant professor of mathematics for the ensuing year, and to employ Prof. Couch as assistant chemist. The board ordered some 6,000 or 7,000 acres of agricultural lands in Butler county to be sold at the appraised value. The iron ore beds known as the Lenox tract, in Phelps county, was ordered to be leased on a royalty, as also several lead mines in Newton county. The new scientific building at Columbia will be completed by the commencement of the next academic year in July.

## TO ADVERTISERS.

WE would call the attention of business houses of St. Louis and elsewhere to the following in our last issue:

"The regular editions of *The American Journal of Education*, printed, delivered, and paid for, have been 10,000 copies of each issue for some time past."

Yours respectfully,  
R. P. STUDLEY CO.

Also to the following extract from the *Kansas City Times* of May 14th:

"The *American Journal of Education*, which from a small sheet, started a little over four years ago, has grown to be the 'Harpers' among educational journals, and to a circulation of ten thousand."

Also to the following from the *Missouri Democrat* of June 3d:

"The *American Journal of Education* has a circulation of over ten thousand copies among our most intelligent and enterprising people, and is one of the very best advertising mediums in the West."

Also to the following from our esteemed co-laborer the *New York School Journal*:

"The *American Journal of Education*, published at St. Louis, Mo., by J. B. Merwin, has a rare table of contents for June. It is illustrated with numerous engravings, and its 'Young Folks' Department' is lively and instructive. The current number shows the prosperity of our contemporary in requiring sixteen extra columns to accommodate the wants of its readers and advertisers."

Also to the following from the *Missouri Republican* of June 3d:

"The *American Journal of Education* has a circulation now of over 10,000, which makes it one of the best advertising mediums in the West."

We can hardly add anything to these flattering testimonials from the East and West. They are but specimens out of a large number constantly coming to our table.

Remember that 10,000 circulation means 75,000 to 80,000 readers, and that the readers of a *Journal* like ours are the most intelligent and active portion of our population, the organizers and producers in society, the builders of schools, churches and railroads.

Our advertising columns in this issue show that business men recognize this element, and appreciate the facilities for reaching them which we offer.

THE commencement exercises of Lincoln Institute will occur at Jefferson City on Friday, June 21st. This is the close of the first year of the school in its new building, under charge of Rev. M. Henry Smith. That it has been a successful year, beyond all expectation, the trustees and teachers confidently assert—and will heartily welcome all who choose to come to the annual exhibition and see for themselves what our colored pupils are capable of.

Lincoln Institute has a great work before it. It needs help—a dormitory and boarding house are especially needed at once, to provide for the increasing number of pupils, and for the vast number who cannot come until these accommodations are provided. Is there no Cornell, or Vassar, or Williston, who will perpetuate his own name and confer a blessing on posterity, by endowing this institution?



## SCHOOL LEGISLATION.

THE changes made by the Legislature in Missouri, at its last session, in the school law were confined to the special act relating to towns and cities. This portion of the school law was changed in the following particulars:

1st. The tax for current expenses is changed from *one per cent.* to *one-half of one per cent.* in cities having a population of fifteen thousand or more.

2nd. Boards of Education are no longer authorized to issue bonds without a vote of the people at some general election, or at a special election called for that purpose.

The tax for building purposes has not been changed.

There is one feature in the law making these changes which it may be well to notice. No time is specified for this law to go into effect, so that from and after its approval, March 15, 1872, Boards of Education may legally exercise their old authority to issue bonds for *ninety* days. This act will become a law and be in force thereafter.

This change in the law was clearly for the purpose of preventing the abuse of a power which some few Boards of Education did not exhibit much judgment in exercising. The people must be protected against even the indiscretions of their own agents, if such protection is possible. While fine school houses add very much to the beauty of a locality, yet there is danger of some of our good school men inflicting a serious blow upon our school interests throughout the State, unless the necessity of a district for a good school building is not allowed to override the ability of the taxpayers in the district to build one.

The law as it now stands has some serious defects, but familiarity with its provisions will certainly give us greater facility in adapting them to the different circumstances of the various cases as they may hereafter arise. There is no certainty, and hardly a possibility, of our getting a better law for some years to come. There is always much less difficulty in discovering defects in a law than there is in remedying them after we have discovered them. We are but repeating the history of education in many of the older States, and we have quite as good a law to-day as most of them. The friction in our school system comes more from a want of educational sentiment among some portions of our people than it does from any inherent defects in our school system.

The old law may be much improved by giving us an edition with notes, explanations, suggestions, decisions. Some obscure points might be thus cleared up, and an application of its provisions rendered comparatively easy. We hope such an edition may be forthcoming.

In addition to the school legislation indicated above, there are un-

mistakable signs of a growing interest in education in our State, from the fact that the Legislature appropriated *one hundred thousand* dollars to the use and for the benefit of the State University. Of this sum sixty-five thousand dollars are for the University at Columbia, and thirty-five thousand dollars for the School of Mines, located at Rolla.

To the State Normal School at Kirksville, the sum of fifty thousand dollars was given, to complete the magnificent structure, now nearly finished, for the use of the flourishing school at that place. In addition to all this, the school fund of the State was increased \$900,000 by the proceeds arising from the sale of stock, and accrued interest, in the Bank of the State of Missouri.

In this matter the State Auditor is instructed to issue a certificate of indebtedness in favor of the State Board of Education for the sum of \$900,000, bearing interest from and after July 1st, 1872, at the rate of *six per cent.* The annual amount to be distributed for the benefit of our public school will be increased by \$54,000. The present year the increase will be only \$36,000, since one third of the year contemplated will have elapsed before the interest will begin to run, the distribution being made in March, 1873.

## BENSON AND HIS GEOMETRY.

THE crazy mathematician, Prof. Lawrence Benson, author of Benson's Geometry, is out with another pamphlet in answer to some critic and friends who in vain essayed to convince him of his errors in reasoning. Benson's madness arises from his dislike of indirect reasoning, or the use of the *reductio ad absurdum*. He says, for instance:

"In regard to the proposition that A is either greater than, less than, or equal to B, it will be more in accordance with 'strict mathematical demonstration' to prove directly that A is equal to B, than to use false premises, circuitous processes and sophistical arguments, which finally result in absurd conclusions. For if A be equal to B, it can be proven so by direct demonstration; and if A can not be proven by direct demonstration equal to B, it is evidently clear that A and B are unequal."

He therefore rejects the conclusions of mathematicians as to the area of the circle, and fancies that he proves it equal to three times the square described on the radius, or "the circle is the mean area between the circumscribed and the inscribed squares." He says, moreover, "I base my entire argument upon the single proposition that *the arc of a quadrant is geometrically equivalent in length to the sum of the chord and the altitude of the segment of the quadrant.*" Now, he admits the well known fact that "three times the square of radius represents the area of a regular inscribed dodecagon," and then adds:

"According to the nature and properties of the circle, three times square of radius will also represent the area of the

circle. As paradoxical as it may appear, there is no conflict with the well-known axiom that a part is less than a whole; because these conclusions are derived independently of one another, and they relate to separate and distinct conditions. The fact that the conclusion, that the circle is three times square of radius, agrees with numerous established truths relating to the cone, sphere and cylinder, and the lune, must outweigh its disagreement with one truth relating to polygons, when we take in consideration that there is a peculiar connection between the circle and the cone, sphere, cylinder and lune, and there is no peculiar connection between the circle and polygon.

"Prof. Chauvenet remained silent after my reply."

The above specimen of his reasoning occurs in his answer to a letter from Prof. Chauvenet; hence his reference to that eminent scholar. Well might Chauvenet, or any other sane man, be silent in the presence of such arrant twaddle.

And here we will leave him. We would not have said thus much had we not known that Benson's Geometry had been recommended by men high in office, and that it was in use as a text-book in some schools.

## PENNSYLVANIA.

THE following statement exhibits the present condition of the Public School System in this State:

Number of School Districts .....	2,023
Number of Schools .....	15,700
Number of Schools Graded .....	4,634
Number of School Directors .....	15,320
Number of Superintendents .....	81
Number of Teachers .....	18,022
Average Salary of Male Teachers per month .....	\$41.04
Average Salary of Female Teachers per month .....	\$32.85
Average Length of School Term in months .....	6.36
Number of Pupils .....	834,614
Average Number of Pupils .....	57,158
Percentage of Attendance upon the whole Number Registered .....	.68
Average Cost of Teachers per month for each Pupil .....	\$0.98
Cost of Tuition for the year .....	\$3,926,529.88
Cost of Building, Purchasing and Renting School Houses .....	\$3,886,253.57
Cost of Contingencies .....	\$1,107,124.94
Total Cost of Tuition, building, etc., and Contingencies .....	\$8,919,908.39
Total Cost including Expenditures of all kinds .....	\$8,980,918.33
Estimated Value of School Property .....	\$16,889,624

The Superintendent gives other statements showing a marvelous growth in the Public Schools in the good old Commonwealth.

Substantially, collegiate education is free in Pennsylvania. Three well-established colleges at least, within a radius of a hundred miles of Philadelphia, offer instruction without money or price. The old University of Pennsylvania, for fifty years or more, by its charter, extends free tuition to the graduates of the high school, under certain conditions of selection. Franklin and Marshall College, Lancaster, does the same in that county, besides having out a large number of free scholarships. More than this, this college has a standing offer of free tuition to all the young men of any county, coming from any school, on the contribution by the county or any one in its name of a few thousand dollars. How many counties of the State have closed with this liberal offer we are unable to say at present. Finally, Hon. Asa Packer, last summer, gave an additional half a million to the Lehigh University to make it free to all the State. The fact is that liberal

education in Pennsylvania is more freely given than received. In general it is better to give than receive, but in this case the rule might safely be reversed. We may add that of these institutions the two former lean toward a classical, the latter towards a scientific or technical basis of study.

There are now ten State Normal Schools in operation, or preparing to go into operation, in Pennsylvania. The officers of these institutions, including trustees, principals and faculties, number probably two hundred. They have about two thousand students. The value of the property is about \$500,000.

The favorable opinion with which the Legislature regard the Normal Schools, and the work they are doing for the common schools of the State, in training teachers for them, is shown in the following generous appropriations made to sustain those in operation and to establish new ones:

For the education of teachers in the Normal Schools of the Commonwealth .....	\$15,000
For the education of young colored men for teachers, at Lincoln University .....	2,500
For the State Normal School at West Chester .....	15,000
To aid the Cumberland State Valley Normal School .....	15,000
To aid the Indiana State Normal School .....	15,000
	\$60,000

## WHAT IT REQUIRES.

IT is said that a man may plead law or preach the gospel with less intellect than is required for the conduct of a paper. The editor must understand something of everything. He wants more than a pair of scissors and a box of mucilage. If he merely retails the ideas of others, the public will prefer to go up and get the thing at the wholesale establishment. He must be able, with strong and enterprising pen, to discuss government, religions, educational enterprises, social changes, books, amusements, men, institutions, everything. He must have strength to take a thought on the end of his pen and fling it a thousand miles, till it strikes within an inch of the point at which he aimed it, and carry conviction alike to the indifferent and the ignorant.

## CHICAGO AND ALTON RAILROAD.

—This company have placed on their line north from this city a through night express train, with sleeping cars attached, for Quincy, Burlington, Cedar Rapids, and St. Paul, leaving the ticket office, No. 117 N. Fourth street, corner Pine, every night except Saturday. This arrangement supplies a want long felt by the business community. Persons can now leave by this route for Quincy or Burlington after supper, have a full day in either place, and return next night, losing no time during business hours; or, if they wish to go on to St. Paul, close connections are made direct through to that city, and to all other points in Iowa. By this route we avoid the filthy cars, frequent changes, delays, and general mismanagement of the old North Missouri Railroad.



## Our Young Folk's Department.

## ABOUT THOSE MAPS.

HERE they are—all sorts, sizes, and descriptions—on foolscap, bristol-board, and mapping plates—colored with crayons and with water colors—colored physically, politically and æsthetically, and not colored at all—drawn with pencil, and with pen and ink—maps to make you laugh, to think how funny it must be to have Cape Cod at the mouth of the Delaware, and maps to make you weep, at the approaching extinction of all things, indicated by the meridian of Washington having slid ten degrees out into the Atlantic—maps good, bad, and indifferent, in all the degrees of comparison of each—maps, maps, maps, and more maps.

We didn't dream of this avalanche of maps when we offered our prize in the April number; but we are glad of this generous and prompt response. It is a pleasure to see the interest taken by our young friends, and to see what general attention is paid now-a-days to this pleasant and profitable branch of study, and how much real proficiency is attained.

Now, let us say a word or two about our notions on the subject of map-drawing, to explain how we award our prize, and to help those who choose to compete next time, so that they may do even better than they have done. Let every one of our young friends put this down.

We do not give prizes for using Camp's, or Guyot's, or any other mapping plates. We believe in the use of mapping plates as a help to correctness of outline; but if any one can draw correctly without them, so much the better.

It is a very difficult piece of work to draw parallels and meridians, and he who can do it is entitled to greater credit than he who uses those ready made to his hand.

Then we do not give prizes for coloring. If nicely done, it is a help to an otherwise correct map; but few can do it nicely, and there is no degree of perfection in it that can atone for faults in drawing.

We do not give prizes for pretty margins, or elegantly shaded coast-lines, or blue ribbons, or any of the purely decorative parts of the map. Between two maps equally correct, neatness and elegance of finish will turn the balance; but, correctness is the thing to be aimed at, first, last, and all the time.

After the map is correctly drawn, then add to it delicate shading and coloring, and any tasteful ornamentation, but don't imagine for a moment that any of these things can take the place of correctness.

We want teachers who are interested in this business—and we are pleased to see how many there are—to impress these things upon any of their pupils who design to compete for our future prizes.

On the whole, we like this business. It makes us acquainted with the boys and girls; and the better we know them, the better we like them. And so, look here: we will give for the best map of the world (Eastern and Western Hemispheres,) sent us before the first of September, a volume of Scribner's Illustrated Library of Wonders. For the second best, a nicely bound book.

Now, read over what we have written, and let us see what you can do.

## OUR LETTERS.

WE have a good many letters, in response to our offer of a prize in our April and May numbers, and have had no little difficulty in determining which of them is most deserving. They are very nice letters, and indicate a good deal of pains taken by the authors, but they all appear to be the work of inexperienced writers. In fact, many of them begin with the remark that this is a first effort.

We think that a little more home culture, and much more attention by teachers, is urgently required to what is really a most important art, and one in which there is a great want of proficiency.

But we are in no mood for fault-finding, and desire to express our pleasure at the general interest our offer has awakened among our young friends, and to thank them for the very kind letters they sent us. We mean to deserve their regard, and hope always to have a place in their affections.

Although we shall not now offer another prize for letters, we hope to hear further from our young friends. They can send us puzzles or any curious or interesting incidents that happen in their knowledge. They can ask us questions, which we will always do our best to answer. We make no rash promises, since it is always easier to ask than to answer them. We can't always publish letters, but we will try to acknowledge them in some way.

## WHO WINS?

THAT is what a good many bright eyes are looking earnestly down this page to discover, and it won't do to keep them in suspense.

As to maps, we were really at a loss to decide, until all hesitation was removed by the receipt of one drawn by Chapman Dean, of Missouri, aged 12 years, of whose work we will say that it is on common drawing paper, the parallels and meridians carefully worked out, and the physical and political outlines so accurately done, that it is almost impossible to detect an error. It is colored and finished with great care, and is not only the best map submitted, but the best school-room work we ever saw.

Although not included in our original offer, we will give a second prize, a copy of Webster's Pocket Dictionary, to H. W. Krøger, of Missouri,

whose map is as carefully and correctly drawn as Dean's but unfinished.

To each of the following competitors, in recognition of their deserving work, we propose to send a set of mapping plates: Emma Gether, of Mo. and C. H. Shearer, of Iowa, who rank next in point of merit to the above; Fred. E. Gibbs and Martha Emerson, of Ark.; Josie Myers, Ida Gal-yeau, Alcinda Roberts, Estella Lytle, Annie Elsea, Belle Everhart, and Mattie LaForce, of Iowa; S. Butterfield, Edgar P. Randle, Henrietta Kelley, Eva Slater, Geo. W. Rogers, Geo. D. Marsh, E. E. Watson, and Arthur Anderson, of Mo.

The following letter takes the prize. It is far from perfect; but, for a little girl of nine years is a very creditable production. We wish we could give the hand-writing also, for it is capital.

ST. CHARLES, MO., April 18, 1872.

Dear Sir—Seeing your notice in the paper, I thought I would compete for the prize. I am a pupil of the Jefferson Public School of this place, and have been attending there for three years. We have a fine and prosperous school of 240 scholars, and four teachers. I am now in the next to the highest class, and am studying the Third Reader, Third Geography, Intellectual Arithmetic, and Spelling. I am also studying German (although I am an English girl,) and like it very much. I am very fond of my school, and think I ought to be very studious, for there is nothing like a good education.

Our school closes the last of June, and then comes our examination, which most of the scholars dread; but I think I am prepared to pass it, for I have studied hard. But the hundred and fifty words are complete, and I must close.

Hoping you will deign to notice my letter (although I may fail to win the prize), I am, respectfully yours,

MARTHA VIRGINIA CHRISTY.

Aged nine years.

There are a good many others from various States which we would be glad to notice, but cannot give the space.

The following initials will probably be recognized by their owners. They include some of the most deserving of our young correspondents: J. F. of Mo., S. B. of Iowa, J. M. S. of Texas, F. M. C. of Mo., (who sent answers to puzzles in May No.), E. B. of Mo., M. N. of Tenn., C. H. of Iowa, G. N. T. of Kansas, L. F. M. of Mo., L. B. A. of Conn., A. H. A. of Ill., M. A. H. of Mo., J. M. A. and M. A. F. of Iowa, R. S. M. and G. T. B. of Ark., and H. M. S. of Penn.

## Mathematical Notes.

I. *Factors of Unity.*—The following equations are obviously true:

$$(\sqrt{3} + \sqrt{2})(\sqrt{3} - \sqrt{2}) = 1.$$

$$(\sqrt{6} + \sqrt{5})(\sqrt{6} - \sqrt{5}) = 1.$$

$$(\sqrt{7} + \sqrt{6})(\sqrt{7} - \sqrt{6}) = 1.$$

$$(\sqrt{n} + \sqrt{n-1})(\sqrt{n} - \sqrt{n-1}) = 1.$$

Or, the product of the sum of the square roots of any two consecutive numbers multiplied by their difference, is equal to unity.

This may be of value in simplifying radical quantities.

II. *Cancellation.*—If there is a fifth fundamental rule in arithmetic it is cancellation. It should come into every example, if it is possible. It is the great labor-saving machine of applied mathematics. The tedious and unnecessary multiplications and divisions students are often required to perform, remind one forcibly of the brilliant campaign of the King of France, who—

"... with twenty thousand men, Marched up the hill, and then marched down again."



## Enigma.

I am a word of six letters.

My 1, is a personal pronoun.

My 1, 2, is a personal pronoun.

My 2, 3, 4, is a personal pronoun.

My 3, 4, is a personal pronoun.

My 3, 4, 5, is a personal pronoun.

My 3, 4, 5, 6, is a personal pronoun.

## Double Acrostic.

## FOUNDATION WORDS.\*

My 2d contributed greatly to the success of my 1st.

## CROSS WORDS.

1. A kind of fight.
2. A volcano.
3. A town in France.
4. An exclamation.
5. Peculiar to Italy.
6. Must be preserved.
7. A game for children.
8. Fickle.
9. A lake in North America.
10. A Naval Hero.

\*The first foundation word is formed by the initials of the 10 cross words, the second by their finals.

QUESTION IN ARITHMETIC.—A manufacturer produces his goods at fifty per cent. of the retail price; he gives an agent 30 per cent. commission for selling; this commission is paid to the agent in goods at 45 per cent. discount from retail price. The manufacturer's expenses in transacting business are 25 per cent. of his sales. Does he make or lose, and how much?

## Answers to Puzzles, etc., in May No.

Enigma—"Washington Irving."

Rebus—"Abandon it." (A band on it.)

GEOMETRY PROBLEM—Solution by Louis Frondin, St. Louis, Mo.:



Let  $AB$  = the sum of the diagonal and side of the required square. From  $B$  draw  $BX$ , at right angles to  $AB$ . Draw  $AC$  from  $A$ , making the angle  $CAB = \frac{1}{4}$  a right angle. Complete  $BC^2$ , and the required square is found. For, join  $CE$ , then the angle  $CEB = EAC + ECA$ ; but  $EAC = \frac{1}{4}$   $CEB = \frac{1}{4}$  right angle  $\therefore EAC = ECA$ , and the triangle is isosceles;  $\therefore EC = AE$ .  $\therefore AE$  is the diagonal and  $EB$  is the side of the required square, and  $AB$  is their sum.

We have a problem in Trigonometry sent us for publication, which is excellent in every way, and which we proposed inserting in this number, until, at our request, the contributor sent us the solution, which is so long that we actually cannot afford space. Will those who send problems please bear this in mind, and select such as are capable of very brief solutions.



## Book Notices.

THE SCIENCE OF WEALTH; A MANUAL OF POLITICAL ECONOMY. By Amasa Walker, LL. D. Philadelphia: J. B. Lippincott & Co. 1 vol. 12 mo., cloth. For sale by St. Louis Book & News Company, St. Louis.

The word "Education" as applied to the work of the public school is almost a misnomer. Where the public school leaves off, nine out of ten of its pupils may fairly be said to begin. The rudiments they have acquired are simply the tools which they have learned to use more or less skilfully, and by means of which their real education is henceforth to be accomplished. What the public school practically accomplishes towards fitting the pupils for the future work of the citizen is very little, compared with what it ought to do in the years it has the pupil in its charge; little compared with what it might accomplish if the value of time were more regarded, and business-like economies studied.

The child leaves the school having gone through a series of six readers, twelve writing books, three, four, or five arithmetics, geographies and grammars, and that is all. The school seems to be a large machine for the consumption of text-books. The interests of publishers are sought after rather than of pupils or their parents, and the result is that half the pupil's time is frittered away in vain repetitions, going over ground that ought to be already familiar, and leaving untouched hundreds of subjects that may be of the greatest importance in the future life of the man or woman. We know a little girl of ten, who has studied geography three years, and has never got beyond the United States, and probably never will unless she changes her school.

The result of this sort of thing is that the ordinary public school pupil comes up to manhood ungrounded in the sciences which concern him most, and which in his sphere as citizen he has most occasion to understand—ungrounded, not always entirely untaught. Happily or otherwise, in this country of newspapers and democracy, no man can get to twenty-one without forming views more or less intelligent, more or less positive on every current political topic, and when we consider the extended ramifications of our national, State and local politics, we find nearly every question of public policy and morals to be at one time and another embraced in them. The town which is to-day divided in its local election, on a question of licensing circuses, is to-morrow agitated over the question of paying interest in gold or greenbacks; next day it may be on railroads, and then on schools, then on dram shops, then on protective tariffs, and the boy who grows up to manhood under the influence of these discussions, can certainly not be wholly ignorant of the topics discussed. It is thus the citizen gets his education, and to many it is a satisfactory subject of contemplation.

It must be confessed, however, that political debates are not the best sources for instruction, especially in the heat of partisan discussion. The tendency to distort facts, to misconstrue their teaching, to appeal to passion rather than to reason, in fact the very purpose in view—to accomplish an object rather than to elicit truth—all are in the way of thorough investigation of the principles that lie at the bottom of the controversy.

Hence it results that the political education of so many is entirely superficial, and theories which applied to private life would be rejected as preposterous, are supported by thousands, and even by dominant political parties, as the true basis of prosperity in the State.

That the perpetuity of a republic is bound up in the intelligence of its citizens, is too obvious to need stating. It is not so much matter in an absolute or aristocratic government; wisdom must be with those who rule. Foolish kings, and a stupid, besotted nobility, make themselves the prey of the mob, precisely as an ignorant, besotted people become the prey of shrewd and unscrupulous leaders. If the people are to govern, a knowledge of the fundamental principles of government, and of its legitimate functions, ought to be widely disseminated.

But this cannot be done at school, partly because most pupils leave school too young to fairly comprehend the subject, partly because anything that savors of politics cannot safely be introduced into the school. It would be a worse bug-bear than the Bible. We have only after a bloody war reached a point where the Constitution of the United States can be safely taught, but what would be said to a text-book which discussed the question of greenbacks, or the duty on pig-iron?

If we could get a book which would state only those things upon which economists are agreed, it would be well; but, in the present state of the science, such a book would hardly get beyond the aphorism, "Money is money." There can be no more "irrepressible conflict" than that between the diverse schools of political economy. Yet the science of wealth must be an absolute science, as much as arithmetic, whether it is applied to men singly, in corporations, communities, or nations. It is only through false and partisan views of it that such vast differences have arisen. But every citizen ought to make himself acquainted with it—not for partisan purposes, but for the sake of his own and his country's prosperity. It ought to be studied as impassively as grammar, and the laws of trade to be as familiar as the rules of syntax at least. There will be blunders in both, but the laws are unchangeable.

We have never met a book so well adapted to the use of young men who desire a thorough fundamental knowledge of the subject, as the work at

the head of this article. Those who know the author know well his earnestness and sincerity of conviction. He has long been connected with one of our first Colleges as lecturer on political economy, and puts his thoughts in the most attractive shape possible. The latest authorities, and the most recent statistics, are found in this edition of his work.

The "Science of Wealth" was originally published in 1866, by Little, Brown & Co., of Boston. It has passed through six editions, of the last of which the present volume is a condensation. It is convenient in form, adapted either for reading, for use as a text-book in higher schools, or, with its index and complete table of contents, for a book of reference.

We bespeak for it a welcome from all men who desire to see clearly the distinction between truth and fallacy, and to build up intelligent popular convictions on the topics of which it treats.

PAUL OF TARSUS. Boston: Roberts Bros. For sale by Hendricks & Chittenden, St. Louis.

Here comes a book with the hint that it is from the author of "Ecce Homo," and we believe it to be so. What a crisp, and yet full style. Compare Prof. Seeley's books and you find one secret of his power in the unflinching freshness of his thought; but this always supplemented by his freshness of method.

"Judaism (this volume begins) was the cradle of Christianity; and Judaism very nearly became its grave." "From so serious a peril one man saved Christianity, and this at a time when the words and acts of Christ had been recorded in no written gospel." "The career of no man has ever produced such lasting effects on the world's history as that of St. Paul." To develop these theses Paul of Tarsus is written. It will have a powerful effect, second only to *Ecce Homo*.

The correlative works of Renan—bright, critical, sparkling—effervesce as we read them. But these works are the level thought of the age—the age thinks them through the author. Old works on Jesus failed to satisfy. The last decade has been busy gathering up and expressing the latest conception of The Christ. We now come to a literature of the Apostles. Dr. Sears on John, and Dr. Seeley and Renan on Paul, lead the van.

Scribner, Armstrong & Co., send us through Hendricks & Chittenden, "A Miller's Story of the War," by Erckman-Chatrian, and a very readable story it is.

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*Harper's*, for May, opens with a very readable article on the "German Gambling Spas," which is accompanied with illustrations; the serials are all continued, and there is an excellent review of "John Wesley and his Times." The Easy Chair has something to say of the "modern tendency of Opera," and the remain-

der of the list of contents is filled up with poetry, and shorter articles.

*The Galaxy* has a number of excellent articles outside of the editorial miscellany. Among the most readable papers are "Sir Charles Dilke and the English Republicans" by Justin McCarthy. "The Woman Movement in Wyoming," "Modern Languages in American Colleges," and a sketch of English social life, by Albert Rhodes. The poetry of the number is not quite up to what it should be.

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*Popular Science Monthly*.—Now, if you have not a superfluity of time, lay aside your ordinary light-weight monthlies, and study this most valuable addition to our literature. What we want is not nice dissertations on all sorts of pretty subjects; but we need the truths that this age is hewing out and classifying as science. We must have just this monthly. Prof. Youmans is a fortunate man in his venture. It will pay, as well as take. Some articles will of course be failures, as, for instance, that on immortality, by T. W. Fowle, which is rambling, conceited, and unjust everywhere—a weak, unjoined, annoying dissertation. But who can praise too highly anything from the pen of Herbert Spencer; or the neat work of De Quatrefages. These are articles not to be credited, but to be studied. They are for those who examine all things, and listen freely, but who decide for themselves.

*Old and New*.—The current numbers for June completes volume 5. The opening paper is a discussion of the "Indirect Claims." Then comes another installment of "The Vicar's Daughter." The conclusion is reached in "Six of one and a half a dozen of the other," and the story has been a failure. "Living in Germany" is entertaining, and all the shorter pieces will be found of interest.

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A SMALLER ANCIENT HISTORY OF THE EAST. By Philip Smith, B.A. 16mo; cloth; illustrated. \$1.00.



## Our Young Folk's Department.

## ABOUT THOSE MAPS.

HERE they are—all sorts, sizes, and descriptions—on foolscap, bristol-board, and mapping plates—colored with crayons and with water colors—colored physically, politically and æsthetically, and not colored at all—drawn with pencil, and with pen and ink—maps to make you laugh, to think how funny it must be to have Cape Cod at the mouth of the Delaware, and maps to make you weep, at the approaching extinction of all things, indicated by the meridian of Washington having slid ten degrees out into the Atlantic—maps good, bad, and indifferent, in all the degrees of comparison of each—maps, maps, maps, and more maps.

We didn't dream of this avalanche of maps when we offered our prize in the April number; but we are glad of this generous and prompt response. It is a pleasure to see the interest taken by our young friends, and to see what general attention is paid now-a-days to this pleasant and profitable branch of study, and how much real proficiency is attained.

Now, let us say a word or two about our notions on the subject of map-drawing, to explain how we award our prize, and to help those who choose to compete next time, so that they may do even better than they have done. Let every one of our young friends put this down.

We do not give prizes for using Camp's, or Guyot's, or any other mapping plates. We believe in the use of mapping plates as a help to correctness of outline; but if any one can draw correctly without them, so much the better.

It is a very difficult piece of work to draw parallels and meridians, and he who can do it is entitled to greater credit than he who uses those ready made to his hand.

Then we do not give prizes for coloring. If nicely done, it is a help to an otherwise correct map; but few can do it nicely, and there is no degree of perfection in it that can atone for faults in drawing.

We do not give prizes for pretty margins, or elegantly shaded coast-lines, or blue ribbons, or any of the purely decorative parts of the map. Between two maps equally correct, neatness and elegance of finish will turn the balance; but, correctness is the thing to be aimed at, first, last, and all the time.

After the map is correctly drawn, then add to it delicate shading and coloring, and any tasteful ornamentation, but don't imagine for a moment that any of these things can take the place of correctness.

We want teachers who are interested in this business—and we are pleased to see how many there are—to impress these things upon any of their pupils who design to compete for our future prizes.

On the whole, we like this business. It makes us acquainted with the boys and girls; and the better we know them, the better we like them. And so, look here: we will give for the best map of the world (Eastern and Western Hemispheres,) sent us before the first of September, a volume of Scribner's Illustrated Library of Wonders. For the second best, a nicely bound book.

Now, read over what we have written, and let us see what you can do.

## OUR LETTERS.

WE have a good many letters, in response to our offer of a prize in our April and May numbers, and have had no little difficulty in determining which of them is most deserving. They are very nice letters, and indicate a good deal of pains taken by the authors, but they all appear to be the work of inexperienced writers. In fact, many of them begin with the remark that this is a first effort.

We think that a little more home culture, and much more attention by teachers, is urgently required to what is really a most important art, and one in which there is a great want of proficiency.

But we are in no mood for fault-finding, and desire to express our pleasure at the general interest our offer has awakened among our young friends, and to thank them for the very kind letters they sent us. We mean to deserve their regard, and hope always to have a place in their affections.

Although we shall not now offer another prize for letters, we hope to hear further from our young friends. They can send us puzzles or any curious or interesting incidents that happen in their knowledge. They can ask us questions, which we will always do our best to answer. We make no rash promises, since it is always easier to ask than to answer them. We can't always publish letters, but we will try to acknowledge them in some way.

## WHO WINS?

THAT is what a good many bright eyes are looking earnestly down this page to discover, and it won't do to keep them in suspense.

As to maps, we were really at a loss to decide, until all hesitation was removed by the receipt of one drawn by Chapman Dean, of Missouri, aged 12 years, of whose work we will say that it is on common drawing paper, the parallels and meridians carefully worked out, and the physical and political outlines so accurately done, that it is almost impossible to detect an error. It is colored and finished with great care, and is not only the best map submitted, but the best school-room work we ever saw.

Although not included in our original offer, we will give a second prize, a copy of Webster's Pocket Dictionary, to H. W. Krøger, of Missouri,

whose map is as carefully and correctly drawn as Dean's but unfinished.

To each of the following competitors, in recognition of their deserving work, we propose to send a set of mapping plates: Emma Gether, of Mo. and C. H. Shearer, of Iowa, who rank next in point of merit to the above; Fred. E. Gibbs and Martha Emerson, of Ark.; Josie Myers, Ida Galyean, Alcinda Roberts, Estella Lytle, Annie Elsea, Belle Everhart, and Mattie LaForce, of Iowa; S. Butterfield, Edgar P. Randle, Henrietta Kelley, Eva Slater, Geo. W. Rogers, Geo. D. Marsh, E. E. Watson, and Arthur Anderson, of Mo.

The following letter takes the prize. It is far from perfect; but, for a little girl of nine years is a very creditable production. We wish we could give the hand-writing also, for it is capital.

ST. CHARLES, MO., April 18, 1872.

Dear Sir—Seeing your notice in the paper, I thought I would compete for the prize. I am a pupil of the Jefferson Public School of this place, and have been attending there for three years. We have a fine and prosperous school of 240 scholars, and four teachers. I am now in the next to the highest class, and am studying the Third Reader, Third Geography, Intellectual Arithmetic, and Spelling. I am also studying German (although I am an English girl,) and like it very much. I am very fond of my school, and think I ought to be very studious, for there is nothing like a good education.

Our school closes the last of June, and then comes our examination, which most of the scholars dread; but I think I am prepared to pass it, for I have studied hard. But the hundred and fifty words are complete, and I must close.

Hoping you will deign to notice my letter (although I may fail to win the prize), I am, respectfully yours,

MARTHA VIRGINIA CHRISTY.

Aged nine years.

There are a good many others from various States which we would be glad to notice, but cannot give the space.

The following initials will probably be recognized by their owners. They include some of the most deserving of our young correspondents: J. F. of Mo., S. B. of Iowa, J. M. S. of Texas, F. M. C. of Mo., (who sent answers to puzzles in May No.), E. B. of Mo., M. N. of Tenn., C. H. of Iowa, G. N. T. of Kansas, L. F. M. of Mo., L. B. A. of Conn., A. H. A. of Ill., M. A. H. of Mo., J. M. A. and M. A. F. of Iowa, R. S. M. and G. T. B. of Ark., and H. M. S. of Penn.

## Mathematical Notes.

I. *Factors of Unity.*—The following equations are obviously true:

$$(\sqrt{3} + \sqrt{2})(\sqrt{3} - \sqrt{2}) = 1.$$

$$(\sqrt{6} + \sqrt{5})(\sqrt{6} - \sqrt{5}) = 1.$$

$$(\sqrt{7} + \sqrt{6})(\sqrt{7} - \sqrt{6}) = 1.$$

$$(\sqrt{n} + \sqrt{n-1})(\sqrt{n} - \sqrt{n-1}) = 1.$$

Or, the product of the sum of the square roots of any two consecutive numbers multiplied by their difference, is equal to unity.

This may be of value in simplifying radical quantities.

II. *Cancellation.*—If there is a fifth fundamental rule in arithmetic it is cancellation. It should come into every example, if it is possible. It is the great labor-saving machine of applied mathematics. The tedious and unnecessary multiplications and divisions students are often required to perform, remind one forcibly of the brilliant campaign of the King of France, who—

“ \* \* \* with twenty thousand men, Marched up the hill, and then marched down again.”



## Enigma.

I am a word of six letters.

My 1, is a personal pronoun.

My 1, 2, is a personal pronoun.

My 2, 3, 4, is a personal pronoun.

My 3, 4, is a personal pronoun.

My 3, 4, 5, is a personal pronoun.

My 3, 4, 5, 6, is a personal pronoun.

## Double Acrostic.

FOUNDATION WORDS.\*

My 2d contributed greatly to the success of my 1st.

## CROSS WORDS.

1. A kind of fight.
2. A volcano.
3. A town in France.
4. An exclamation.
5. Peculiar to Italy.
6. Must be preserved.
7. A game for children.
8. Fickle.
9. A lake in North America.
10. A Naval Hero.

\*The first foundation word is formed by the initials of the 10 cross words, the second by their finals.

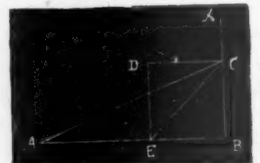
QUESTION IN ARITHMETIC.—A manufacturer produces his goods at fifty per cent. of the retail price; he gives an agent 30 per cent. commission for selling; this commission is paid to the agent in goods at 45 per cent. discount from retail price. The manufacturer's expenses in transacting business are 25 per cent. of his sales. Does he make or lose, and how much?

Answers to Puzzles, etc., in May No.

Enigma—"Washington Irving."

Rebus—"Abandon it." (A band on 17.)

GEOMETRY PROBLEM—Solution by Louis Frondin, St. Louis, Mo.:



Let  $AB$  be the sum of the diagonal and side of the required square. From  $B$  draw  $BX$ , at right angles to  $AB$ . Draw  $AC$  from  $A$ , making the angle  $CAB = \frac{1}{4}$  a right angle. Complete  $BC^2$ , and the required square is found. For, join  $CE$ , then the angle  $CEB = EAC + ECA$ ; but  $EAC = \frac{1}{4}$  right angle  $\therefore EAC = ECA$ , and the triangle is isosceles;  $\therefore EC = AE$ .  $\therefore AE$  is the diagonal and  $EB$  is the side of the required square, and  $AB$  is their sum.

WE have a problem in Trigonometry sent us for publication, which is excellent in every way, and which we proposed inserting in this number, until, at our request, the contributor sent us the solution, which is so long that we actually cannot afford space. Will these who send problems please bear this in mind, and select such as are capable of very brief solutions.



## Book Notices.

THE SCIENCE OF WEALTH; A MANUAL OF POLITICAL ECONOMY. By Amasa Walker, LL. D. Philadelphia: J. B. Lippincott & Co. 1 vol. 12 mo., cloth. For sale by St. Louis Book & News Company, St. Louis.

The word "Education" as applied to the work of the public school is almost a misnomer. Where the public school leaves off, nine out of ten of its pupils may fairly be said to begin. The rudiments they have acquired are simply the tools which they have learned to use more or less skilfully, and by means of which their real education is henceforth to be accomplished. What the public school practically accomplishes towards fitting the pupils for the future work of the citizen is very little, compared with what it ought to do in the years it has the pupil in its charge; little compared with what it might accomplish if the value of time were more regarded, and business-like economies studied.

The child leaves the school having gone through a series of six readers, twelve writing books, three, four, or five arithmetics, geographies and grammars, and that is all. The school seems to be a large machine for the consumption of text-books. The interests of publishers are sought after rather than of pupils or their parents, and the result is that half the pupil's time is frittered away in vain repetitions, going over ground that ought to be already familiar, and leaving untouched hundreds of subjects that may be of the greatest importance in the future life of the man or woman. We know a little girl of ten, who has studied geography three years, and has never got beyond the United States, and probably never will unless she changes her school.

The result of this sort of thing is that the ordinary public school pupil comes up to manhood ungrounded in the sciences which concern him most, and which in his sphere as citizen he has most occasion to understand—ungrounded, not always entirely untaught. Happily or otherwise, in this country of newspapers and democracy, no man can get to twenty-one without forming views more or less intelligent, more or less positive on every current political topic, and when we consider the extended ramifications of our national, State and local politics, we find nearly every question of public policy and morals to be at one time and another embraced in them. The town which is to-day divided in its local election, on a question of licensing circuses, is to-morrow agitated over the question of paying interest in gold or greenbacks; next day it may be on railroads, and then on schools, then on dram shops, then on protective tariffs, and the boy who grows up to manhood under the influence of these discussions, can certainly not be wholly ignorant of the topics discussed. It is thus the citizen gets his education, and to many it is a satisfactory subject of contemplation.

It must be confessed, however, that political debates are not the best sources for instruction, especially in the heat of partisan discussion. The tendency to distort facts, to misconstrue their teaching, to appeal to passion rather than to reason, in fact the very purpose in view—to accomplish an object rather than to elicit truth—all are in the way of thorough investigation of the principles that lie at the bottom of the controversy.

Hence it results that the political education of so many is entirely superficial, and theories which applied to private life would be rejected as preposterous, are supported by thousands, and even by dominant political parties, as the true basis of prosperity in the State.

That the perpetuity of a republic is bound up in the intelligence of its citizens, is too obvious to need stating. It is not so much matter in an absolute or aristocratic government; wisdom must be with those who rule. Foolish kings, and a stupid, besotted nobility, make themselves the prey of the mob, precisely as an ignorant, besotted people become the prey of shrewd and unscrupulous leaders. If the people are to govern, a knowledge of the fundamental principles of government, and of its legitimate functions, ought to be widely disseminated.

But this cannot be done at school, partly because most pupils leave school too young to fairly comprehend the subject, partly because anything that savors of politics cannot safely be introduced into the school. It would be a worse bug-bear than the Bible. We have only after a bloody war reached a point where the Constitution of the United States can be safely taught, but what would be said to a text-book which discussed the question of greenbacks, or the duty on pig-iron?

If we could get a book which would state only those things upon which economists are agreed, it would be well; but, in the present state of the science, such a book would hardly get beyond the aphorism, "Money is money." There can be no more "irrepressible conflict" than that between the diverse schools of political economy. Yet the science of wealth must be an absolute science, as much as arithmetic, whether it is applied to men singly, in corporations, communities, or nations. It is only through false and partisan views of it that such vast differences have arisen. But every citizen ought to make himself acquainted with it—not for partisan purposes, but for the sake of his own and his country's prosperity. It ought to be studied as impassively as grammar, and the laws of trade to be as familiar as the rules of syntax at least. There will be blunders in both, but the laws are unchangeable.

We have never met a book so well adapted to the use of young men who desire a thorough fundamental knowledge of the subject, as the work at

the head of this article. Those who know the author know well his earnestness and sincerity of conviction. He has long been connected with one of our first Colleges as lecturer on political economy, and puts his thoughts in the most attractive shape possible. The latest authorities, and the most recent statistics, are found in this edition of his work.

The "Science of Wealth" was originally published in 1866, by Little, Brown & Co., of Boston. It has passed through six editions, of the last of which the present volume is a condensation. It is convenient in form, adapted either for reading, for use as a text-book in higher schools, or, with its index and complete table of contents, for a book of reference.

We bespeak for it a welcome from all men who desire to see clearly the distinction between truth and fallacy, and to build up intelligent popular convictions on the topics of which it treats.

PAUL OF TARSUS. Boston: Roberts Bros. For sale by Hendricks & Chittenden, St. Louis.

Here comes a book with the hint that it is from the author of "Ecce Homo," and we believe it to be so. What a crisp, and yet full style. Compare Prof. Seeley's books and you find one secret of his power in the unflinching freshness of his thought; but this always supplemented by his freshness of method.

"Judaism (this volume begins) was the cradle of Christianity; and Judaism very nearly became its grave." "From so serious a peril one man saved Christianity, and this at a time when the words and acts of Christ had been recorded in no written gospel." "The career of no man has ever produced such lasting effects on the world's history as that of St. Paul." To develop these theses Paul of Tarsus is written. It will have a powerful effect, second only to Ecce Homo.

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## HOW WE GROW.

IT is only a few years since the region about Fourteenth Street was all out in the woods. The settlers in the vicinity of what is now Garrison avenue, drove in 'busses in and out and never dreamed of the continuous solidly built city that was so shortly to fill up the intervening space.

Nothing more clearly evidences the substantial growth of St. Louis, and the tremendous spring of business westward, than the fact of a Bank in full blast on Fourteenth street and Franklin avenue. The same fact evidences the business enterprise of the managers of the West St. Louis Savings Bank, and a clearer comprehension of the needs of the future St. Louis than most of our business men manifest.

The men who look into the future, and in anticipation of its wants build up business enterprises, are the strength of any city. Another class, anticipating the future no less surely, and manifesting their sagacity by clinging to their corner lots, are a positive detriment—old St. Louis has had too many of them. New St. Louis is growing under the impulse of new men, new ideas, and new realizations of her destiny.

## A NEW PREMIUM.

HERE you have it—a Dictionary free, and a copy of *The American Journal of Education* for one year, on the following terms:

For two subscribers (cash in advance) we will send a POCKET DICTIONARY of the English language abridged from the large quarto, but containing about two hundred engravings. In addition to this, it contains a careful selection of more than eighteen thousand of the most important words of the language; besides tables of money, weight and measure, abbreviations, phrases, proverbs, &c., from the Greek, the Latin, and the modern foreign languages, rules for spelling, &c., &c.; making altogether the most complete and useful pocket companion extant. It is beautifully printed on tinted paper, and bound in cloth.

This premium is open for teachers, pupils, school officers, and all others who need and want a companion like this; and who does not want it when it can be obtained so cheaply and so easily?

Send us the subscriptions, and the JOURNAL and Dictionary shall be sent to you by return mail.

NOTHING lives in literature but that which has in it vitality of creative art; and it would be safe advice to the young to read nothing but what is old.

SKILL, wisdom, and even wit, are culminate; but that diviner quality, faculty, which is the spiritual eye, though it may be trained and sharpened, can not be added to by taking thought.

## AN OPEN LETTER.

To our friends, the School Directors:

GENTLEMEN—After an experience of over ten years in fitting up School-houses with School Desks, Blackboards, Outline Maps, Globes, etc., etc., we have found that most of our School Directors, with the best of intentions, make one great mistake. If possible, we desire now, for the benefit of all parties interested, to make some suggestions by which this mistake may be avoided in the future.

School Desks, to seat the house, should be ordered as soon as the foundation for the building is laid.

By giving the order for the Desks thus early you will be sure to get them in time; and, as you do not have to pay for them until they are set up in the School-house, no extra expense is involved by giving your order for desks early.

The mistake is made by neglecting to send in the order until the School-house is nearly or quite completed. We ought to have at least sixty days' notice, to enable us to get the desks to our customers on time.

There is such a rush of freight in the busy season, that our railroads and steamboats are over-crowded, and it frequently happens that School-desks which are needed for immediate use are left for days at the freight office of these lines of transportation in this city.

We remember a number of instances in past seasons where the goods were sent promptly; but, owing to the above causes, there was so much delay that pupils were obliged to stand in the school-room for days. The teacher hired commenced school—the pupils present—day after day passed and no desks came. Now, all this can be avoided by ordering the desks when the foundation of the building is laid.

It takes from \$75,000 to \$100,000, to keep up a stock of castings and wood-work for the variety of styles and sizes we make in our ordinary business.

We want to be able to ship all goods ordered on demand this year, if possible, but after about the 20th of July, each order is registered as it is received, and will be filled in its turn; so that, in order to avoid delay and disappointment, orders should be sent in promptly.

We clip from an editorial article in one of our contemporaries a few items bearing directly upon this point, so that our friends and customers may know what others say of our facilities, and also what is said of the quality of goods we manufacture. The article is entitled—

"SCHOOL FURNITURE AND OFFICE DESKS.—The Western Publishing and School Furnishing Company exhibited, at our State Fair, a full line of School Desks and Seats, Office Desks, Church Seats, Rustic Seats, and School Apparatus, upon which they took the following premiums: On SCHOOL DESKS, First Premium; on OFFICE DESKS, First Premium; on CHURCH SEATS, First Premium; on SCHOOL APPARATUS, First Premium, thus clearing the board and taking all the honors in their line.

"This display is worthy of especial notice, first because of the intrinsic merit of the articles exhibited, which the blue ribbon upon each denomination of their manufactures attests; and second, because of the extent and large proportions of the Company's business, creating an important line of manufacture in our city. What they claim for their manufactures is that they combine cheapness with elegance, comfort and durability.

"As to the merits of their Patent Gothic School Desk, we can do no better than quote the language of Wm. T. Harris, our worthy Superintendent of Public Schools. He said: 'They are substantial and beautiful, and by their peculiar construction secure perfect ease and comfort to the pupil, and at the same time they encourage that upright position so necessary to the health and proper physical development of the young.'

"An idea of the compass and completeness of their business may be gained from the fact that they are prepared to furnish churches throughout, including Reading Desks, Pulpits, Altar Rails, Pews and Wainscoting; they can also furnish School houses built, or manufactured, ready to set up, and every other article required to start a first-class School, even including the Teacher.

"The Western Publishing and School Furnishing Company have their Warehouse at Nos. 14 and 16 North Seventh Street, and their Office and Salesroom at Nos. 706, 708 and 710 Chestnut street, in the large and magnificent Polytechnic building. In securing this spacious and elegant Salesroom—some sixty feet square, and twenty feet from floor to ceiling—the Company have put themselves in a position to meet the growing wants of the vast region of country seeking their supplies of Church and School Seats and Office Desks in this market.

"They will be glad to show those who may call in person the goods, but especially invite all in want to correspond with them before purchasing elsewhere."

We hope Teachers, County Superintendents, Township Clerks, School Directors and others interested will call attention to the above, and if any further information is needed, it will be promptly and cheerfully given by addressing the WESTERN PUBLISHING AND SCHOOL FURNISHING Co., 706, 708 and 710 Chestnut street, St. Louis, Mo.

## NEBRASKA.

Six years ago Nebraska was admitted to the Union, and at the last census there were 123,000 people there. Since that time fully 75,000 persons have settled in the State, and it is estimated that 100,000 others will go in there this year. They now have fine schools and churches, and a penitentiary that will cost \$500,000. What does her Normal School cost?

## SPECIAL NOTICES.

WANTED.—Teachers will find it interesting and profitable to consult the advertisement under this head on our 1st page.

TOWNSHIP ORGANIZATION.—Our Legislature passed, last winter, a township organization law, which is to go into force only in such counties as choose to adopt it. An edition of the law, with a full set of forms and notes, is now in press. by W. J. Gilbert, law book publisher, of St. Louis.

THE "DOMESTIC" SEWING MACHINE Co.—This company have at length opened an office in St. Louis. Their rapidly increasing business having heretofore prevented them from offering the facilities they desired to the Western Trade.

The present "Domestic" company have been established a little over a year, and are already turning out 200 of their Machines per day, are rapidly increasing, and yet with difficulty meet the growing demand.

They make strong claims, but we believe an examination of the "Machine" at their rooms, 715 Olive St., will satisfy our friends that the "Domestic" is all, and more, than they claim for it.

JANSEN, McCLURG & Co., of Chicago, who succeed the well known firm of S. C. Griggs & Co., as Importers, Booksellers and Stationers, send a word of greeting and an invitation to our readers this month, which we are glad to supplement with a cordial endorsement. This firm are old-time friends, and have earned and deserve, a warm place in the hearts of all lovers of choice literature in the West. S. C. Griggs retires from the firm, and will hereafter devote himself exclusively to the "publishing business." Jansen, McClurg & Co. will rebuild the flame-wasted temple, and replace the unrivaled stock of American and foreign books which were consumed by the great fire in Chicago last October. In their new location, 607 Wabash avenue, they will be glad to see all who can call in person, or fill promptly all orders sent them.

WE speak from actual experience when we endorse Blanchard & Garrison's statements on the last page of *The American Journal of Education*.

TEACHERS who desire active and profitable employment during the summer vacation, will find it to their advantage to examine our advertising columns.

No teacher should be without outline maps, for if his district is unwilling to provide them for the school, he can make them himself.



# THE EIGHTEENTH NATIONAL SÄNGERFEST

WILL take place at ST. LOUIS, Missouri, on WEDNESDAY, June 12th, THURSDAY, June 13th, FRIDAY, June 14th, and SATURDAY, June 15th, 1872. Grand Concerts will be given each evening, and public rehearsals will take place each forenoon, at the

## MAMMOTH MUSIC HALL,

on the corner of Twelfth Street and Washington Avenue, which will seat an audience of 15,000 persons, and has a Stage for 2000 performers. The Festival will close with a

## GRAND PIC-NIC,

TO BE HELD AT THE  
St. Louis Fair Grounds,  
On June 16th, 1872.

On Wednesday, June 12th, 1872, the Festival will be inaugurated by a PROCESSION, in which will participate 2,100 Singers from abroad and from St. Louis, the Civil and Military Societies, and citizens of St. Louis. Upon the arrival of the Procession at the Music Hall, addresses will be delivered by

GOV. B. GRATZ BROWN

AND

SENATOR CARL SCHURZ.

Upon the close of the addresses, the First Reception Concert will be given by 600 gentlemen and 400 ladies, members of the St. Louis Societies, and by an Orchestra composed of a large number of musicians. The other three Concerts will be given by the united singers and musicians of St. Louis and from abroad.

*Eminent Artists are Engaged for the Performance of Solo Parts*

All Railroad Companies have agreed to carry passengers for the round trip at greatly reduced prices. Full programmes will be published in due season.

The price of single tickets of admission to one Concert will be one dollar. Season tickets for four Concerts will be sold at three dollars; and an additional charge of fifty cents will be made for reserved seats.

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EGMONT FREELICH,  
Musical Director.

F. W. MATHIAS, Sec'y.

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## KANSAS TESTIMONIALS

TO THE EXCELLENCE OF THE

NEW

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All Kansas orders should be addressed to

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### NEW PATENT GOTHIC DESKS.



Size 4. Size 3. Size 2. Size 1. Desk. Size 1. Backseat.

N. B.—Size 5 (smallest) is not here shown.

Special attention is called to the merits of the "Patent Gothic" Desk and its advantages over all others.

- I. Its Curved Back.
- II. Its Curved Flat Folding Seat.
- III. Its Noiseless Hinge.
- IV. Its Foot Rest.
- V. Its Braces.
- VI. Its Patent Non-corrosive Ink-wells.

STATE OF KANSAS, Department of Public Instruction,  
TOPEKA KANSAS, May 31, 1872.

To the Western Publishing and School Furnishing Co., St. Louis, Mo.

GENTLEMEN:—Your New Patent Gothic Desk, with the Curved Folding Slat Seat is a model of beauty, strength, comfort and convenience.

It is the best style of furniture for the school room, and when used in the form of single desks, leaves little room for improvement.

Yours very truly,

H. D. McCARTY, Sup't Pub. Ins. State of Kansas.

OFFICE COUNTY SUP'T PUBLIC INSTRUCTION, WILSON COUNTY,  
FREDONIA, KANSAS, May 21, 1872.

To the Western Publishing and School Furnishing Co., St. Louis, Mo.

GENTLEMEN:—I have lately been permitted to examine one of your New Patent Gothic Desks with curved back, curved folding slat seat, braces, etc., and must say that for durability, elegance and ease, I believe them to exceed anything I have seen in school furniture.

Hoping they may find their way into every school house in Southern Kansas, not yet furnished with desks, I remain,

Yours respectfully,

S. W. BURKE, County Sup't Public Schools.

LONGTON, KANSAS, March 9, 1872.

To the Western Publishing and School Furnishing Co., St. Louis, Mo.

GENTLEMEN:—The New Patent Gothic Desk with curved folding slat seat, manufactured by you, has been on exhibition during the past two days at our institute, and I do not hesitate to pronounce it perfect in BEAUTY, STRENGTH AND DURABILITY. I earnestly recommend its use in all of the schools in this country.

Very respectfully yours,

R. S. CATLIN, County Sup't, Howard Co., Kas.

OFFICE OF COUNTY SUP'T MONTGOMERY COUNTY,  
INDEPENDENCE, KAS., June 1, 1872.

To the Western Publishing and School Furnishing Co., St. Louis, Mo.

GENTLEMEN:—After a close examination of your New Gothic Desk, I cannot but lend my testimony to its beauty, strength, and almost perfect comfort. In my opinion it is not equaled by any desk now offered to the public.

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N. BASS, County Sup't Montgomery County.

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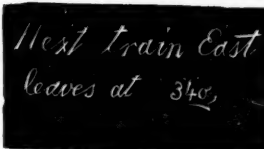
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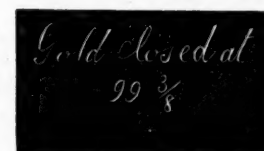


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—AND—

STOCK BROKERS

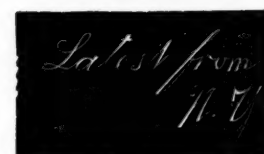
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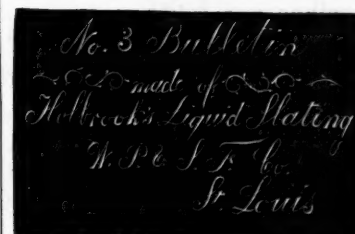
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The examinations for admission to the Engineering Course in the Scientific School, to the Mining School, and to the Bussey Institution, are held on the Thursday following the last Wednesday in September, beginning at 9 A. M.

There are examinations for admission to advanced standing in the Medical School in the week preceding the last Wednesday in September.

Candidates for admission to the Divinity School, unless they are Bachelors of Arts, must pass an examination in some of the Latin Classical authors, and in the Greek text of the Gospels.

There are no examinations for admission to the Law School, Medical School, Dental School, Lawrence Scientific School (except for the course of Engineering), Episcopal Theological School, or University Lectures.

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All Rail, No River Risks, No Delays.

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Great Southern Mail daily (except Sundays) at 7:10 a.m.

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with Palace Sleeping Car attached—8:20 p.m.

Both the above connect with the Mobile & Ohio

and the Nashville and Northwestern trains at

Columbus, Ky.

Hotel Accommodation (Sund. ex.) at 4:30 p.m.

Carondelet Accommodation Trains (except Sun-

days) leave as follows: 5:55 a.m.; 7:30 a.m.;

8:55 a.m.; 9:40 a.m.; 12:10 p.m.; 2:35 p.m.; 6:40

p.m.; 10:45 p.m.

Carondelet Sunday Trains leave at 7:30 a.m.; 1:00

p.m., and 3:15 p.m.

Inward trains from Belmont arrive at 7:20 a.m.

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Omnibuses leave the Ticket Office, Fourth and Pine, crossing at Carr street, as follows:  
Morning Express (Sunday excepted) 7:50 a.m.  
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Lightning Express (every night) 7:55 p.m.  
The only line from

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6:15 p.m. (Daily). Eastern Fast Line.

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Run on this line to PHILADELPHIA, NEW

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All trains for Chicago and Indianapolis run

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NO CHANGE OF CARS TO CHICAGO.

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32 MILES SAVED GOING SOUTH!

This is the shortest and quickest route to

ALL POINTS SOUTH

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3 THROUGH EXPRESS TRAINS DAILY between

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CONDENSED TIME, Feb. 20, 1872.

**EASTWARD.**

Day Exp. Day Exp. Fast Line.

D'y ex Sun D'y ex Sat D'y ex Sun

St. Louis.....Leave 7:00 a.m. 4:15 p.m. 9:30 p.m.

Pana..... 11:35 " 9:02 " 2:21 a.m.

Mattoon..... 1:25 p.m. 10:33 " 4:30 "

Terre Haute..... 3:45 " 12:43 " 6:55 "

Indianapolis.....Arrive 6:20 " 3:10 a.m. 10:00 "

Crestline..... 4:30 a.m. 6:40 p.m.

Cleveland..... 7:30 " 9:55 "

Buffalo..... 1:50 p.m. 4:10 a.m.

Albany..... 1:50 a.m. 2:30 p.m.

Cincinnati..... 11:55 p.m. 9:10 a.m. 4:30 "

Columbus..... 2:45 a.m. 11:00 " 6:25 "

Louisville..... 7:30 " 2:10 a.m.

Pittsburgh..... 12:10 p.m. 4:45 p.m. 10:10 a.m.

Harrisburg..... 10:35 " 2:30 a.m. 11:35 "

Philadelphia..... 3:05 a.m. 6:40 " 3:40 p.m.

Baltimore..... 2:30 " 7:20 " 3:00 "

Washington..... 5:50 " 10:00 " 5:05 "

Boston..... 11:00 " 11:20 " 11:20 "

New York..... 7:00 " 11:50 a.m. 7:00 "

Palace Sleeping Cars on all Night

Trains. Baggage Checked Through.

Palace Day and Sleeping Cars through to In-

dianapolis, Cincinnati, and Eastern Cities, with-

out change.

Ask for tickets via St. Louis, Indianapolis and

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